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SKIASCOPY OF THE HEART.*

A. W. CRANE,
Kalamazoo.

By skiascopy of the heart, I mean a study of the shadow of the heart which is cast upon a fluorescent screen or dry-plate by the X-ray. A good X-ray will give a clear image of the heart, which may be studied in a number of ways, of real value, to the practicing physician.

An X-ray examination of the heart can not be properly performed with a small fluoroscope. An open screen large enough to take in the shadow of the entire chest is almost a necessity. Only in this way can the whole heart be seen in its relations to the thoracic viscera. The examination must be made in a properly darkened room and both hands should be free to make tracings, and to move the patient in various positions. More of the technique I will not touch upon for lack of time. But let no physician pass this part lightly. It is no less difficult to know what you see upon the screen, than to know what you see under the microscope.

The physician who uses the X-ray for

the examination of the heart must observe a large number of healthy hearts in order to appreciate the factors in disease. The area of each auricle and ventricle and of the aorta must be discriminated. Definite images of the cardiac outlines, with various positions of the patient and screen must be held in mind. There is nothing difficult in this. It means simply an amount of practice equivalent to that required to learn auscultation. Yet how many physicians have settled opinions of the value of an X-ray examination of the chest, formed from two or three brief squints through a small fluoroscope.

The X-ray shadow of the heart offers five factors for interpretation. They are its visibility, its position within the chest, its size, its form, and its movements. To the experienced eye variations in the relative visibility of the heart shadow are significant. Increased visibility is observed in cardiac hypertrophy, dilatation, and pericardial effusion; and also in thin chest walls, deep inspirations, and emphysema. In hypertrophy, dilatation and effusion, the size and density of the heart are increased and the shape altered, whereas in deep inspiration, and emphysema the density of the lung structure is decreased without changing the size, shape or density of the heart.

Hypertrophy of one or more chambers of the heart is characterized by an in-

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creased energy of contraction and by an increased size which is due to an increased thickness of heart wall, not too bulging. Dilatation of one or more chambers is distinguished by feeble contractions and by an increased size which is due to bulging and not to increase thickness of heart muscle. A bulging enlargement of one or more chambers associated with an increased energy of contraction would indicate hypertrophy existing with dilatation. Pericardial effusion is differentiated from either hypertrophy or dilatation by rounded form, absence of definite contraction areas, and the obliteration of the space between heart and diaphragm. In effusion, also, the faint outlines of the heart within the distended pericardium can usually be observed.

Emphysema is distinguished by the movements of the diaphragm which are restricted in their upper half.

The visibility of the heart is decreased by adjacent pulmonary shadows, by oedema or congestion of the lung by generalized thickening of pleura, by empyaemia or pericardial effusion, and by very thick chest walls or forcible expiration. Also, small, flabby, anaemic hearts in wasting diseases, look thin and faint under the X-rays.

The position of the heart within the chest is subject to displacements which a glance at the screen will show to be to the left, to the right, downward, or in transposition. Displacement to the left occurs from cirrhosis of the left lung, or from empyaemia, effusion, tumor or aneurism in the right side. Displacement to the right occurs from the same cause in reversed position. Displacement downward occurs from hypertrophy or aneurism.

The size of the heart is actually increased in hypertrophy, dilatation and cardiac aneurism and apparently increased by pericardial effusion. The size is decreased by congenital lack of development, senile atrophy, and sometimes in wasting diseases. The X-ray provides the only precise means of measuring and recording the size of the heart.

The same may be affirmed concerning the form of the heart. The X-ray reveals with infallible accuracy the slightest change in outlines. It may be irregular in form due to hypertrophy, dilatation or aneurism of separate auricles or ventricles; or it may be rounded by senile atrophy, general dilatation or pericardial effusion.

A study of the movements of the heart can be made upon the fluorescent screen only, the photographic plate being obviously useless for this purpose. We have for consideration the pulsations of the auricles, the pulsations of the ventricles, and the heart reflex. It is interesting and useful to apply a Bowles stethoscope with the long tubing, to the chest and listen to the heart sounds at the same time that the pulsations are observed by the eye. One gets an extraordinarily vivid realization of what is going on in the heart. To auscult the heart while it pulsates before the eye upon the stereoscopic screen is an ideal of clinical medicine which is now possible. Completeness of diagnostic methods can go no farther. Ten years ago the wildest dreams of clinicians had not conceived this method.

The pulsations of the auricles are increased in amplitude by auricular hypertrophy, and by either tricuspid or mitral stenosis or insufficiency. But in stenosis,

the ventricle is normal or reduced in size, while in insufficiency, the ventricle is always enlarged. Insufficiency of the aortic valve may also lead to auricular hypertrophy, but the marked contrast between the very large left auricle and the moderately enlarged auricle is a differential point.

Auricular pulsations are decreased by old age, general debility, pericardial effusion, ventricular dilatation without hypertrophy, and hemorrhage.

Pulsations of ventricles are increased in amplitude by hypertrophy and by excitement, fevers, low blood pressure and certain drugs such as digitalis and nitroglycerine. They are decreased by senile atrophy, congenital lack of development, and wasting diseases.

All heart movements are concealed by pericardial effusions. (Parenthetically it may be here observed that paracentesis by the aid of the fluorescent screen becomes a safe and accurate operation. The needle clearly visible to the eye can be passed into the pericardial sac, and the reduction of the cardiac volumes can be watched as the fluid is withdrawn.)

The apex beat as located by palpation and inspection often does not correspond with the apex of the heart as located by the X-ray. This is because palpation locates the point at which the heart lies in contact with the chest wall, whereas the X-ray locates always the true apex. Yet nothing is more common than to rely upon the position of the apex beat to determine the presence or absence of an enlargement of the heart.

The heart reflex is a phenomenon discovered by Dr. Abrams, of San Francisco. It is elicited by briskly rubbing the skin

over the heart by a blunt instrument. A healthy heart will be seen to draw together in all its diameters so as to be smaller without any interruption in its pulsations; and then after a few seconds to expand again. Time only can give us the true clinical significance of this remarkable reflex; but it can hardly fail to be of great value in testing the state of the myocardium and the integrity of its nerve supply.

The limitations of the X-ray examination of the heart have doubtless occurred to most of you as I have been reading. It is plainly not a method to supplant the regular methods of diagnosis, but to amplify. It does not trespass upon the province of the stethoscope, which can be carried in the pocket of every doctor; but it does give into our hands a method of unrivaled precision in determining the form, size and position of the heart; and adds to the domain of clinical diagnosis three new provinces; namely, heart visibility, heart movements, and the heart reflex.

A PROCEDURE FOR THE PREVENTING OF INFECTION AFTER CATARACT EXTRACTION.*

WALTER R. PARKER,
Detroit.

Chronic disease of the lachrymal apparatus or the conjunctiva, accompanied with a muco-purulent or purulent discharge, affords a most serious complication for the operation of cataract extraction, and any procedure that will lessen

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the risk of infection is worthy our careful consideration.

A slight discharge from the conjunctiva or lachrymal apparatus does not mean certain infection, as is well proven by the many cases reported in which the good results are surprisingly high, even though the conjunctiva or lachrymal apparatus was not entirely free from inflammation or discharge. Infection does occur, however, even in these mild cases, and would be almost certain to take place in those of a more serious nature.

Without reviewing the methods suggested by others, I wish to report a case treated after a procedure recently successfully used by Dr. Ellett, of Memphis, Tenn., as reported in the April number of the *Ophthalmic Record*. In this case the operation was done because of chronic conjunctivitis. While the operation has been suggested by others, I do not think its advantages are fully appreciated.

A poorly nourished woman, aged 56, afflicted with a cataract in each eye, practically blind in the left eye for five years, and vision rapidly failing in the right, presented herself at St. Mary's Clinic for treatment. Examination showed not only a hypermature cataract in the left eye and beginning cataract in the right, but a discharge from the lachrymal sac, which the patient said had existed for many years. Though careful treatment was instituted and kept up for several months, the discharge continued. After hearing from Dr. Ellett of the success of his case, I determined to operate as he suggested.

Under cocaine and adrenalin the conjunctiva was incised all around the cornea as if for enucleation. The conjunctiva was then dissected from the ball by means

of a probe, care being taken to free it well in the upward and downward directions to a distance of about a half an inch. The lens was then extracted in the usual way, the combined operation being done. The cut edges of the conjunctiva were then picked up and drawn respectively upward and downward till they met over the cornea. They were then united by a horizontal row of stitches, so as to completely cover the cornea. Care was taken to secure perfect apposition between the edges of the conjunctival flaps. Iodoform was dusted along the line of union and light dressings applied. After twelve hours the dressings were removed, the discharge pressed out of the lachrymal sac, the conjunctiva irrigated and dressings re-applied. This was repeated every twelve hours for three days. On the third day the sutures were removed and the conjunctival wound re-opened. About one-third of the cornea was exposed, showing the anterior chamber re-established. On the fourth day the whole lower half of the cornea was exposed, the lower segment of the conjunctiva having gone back to its original place. The upper segment, however, still covered about one-eighth of the cornea. On the fifth day the whole cornea was exposed, although the conjunctiva was adherent at site of wound, at upper limbus. At no time did the patient complain of pain, recovery being uncomplicated, and a perfect result obtained.

In the above procedure we have not only a means of preventing infection, but a possible protection from accident in nervous and insane patients.

DISCUSSION.

Flemming Carrow, Ann Arbor: Anything which brings us something new and helpful is certain to receive our attention. While,

of course, we cannot pick out a single case, or two, and draw general deductions from their consideration alone, still, this operation described by Dr. Parker certainly seems to me to offer something better than we have had heretofore. Those of us who are working along this line certainly know the difficulties that have to be contended against when we attempt to perform any operation which means the opening of the eye, in the presence of a chronic and constant purulent discharge from the lachrymal apparatus. Now, the opening of the cornea inviting as it does infection from the purulent discharge from the lachrymal sac is an undertaking which rather staggers all of us, and yet we are obliged to do it in cases of double cataract, in order to attempt to give the patient relief from blindness. If, therefore, we have in this operation a means of protecting the wound, (and it seems we have, so far as cases have been related) then, of course, we welcome the operation; and are exceedingly obliged to Dr. Parker for calling our attention to his method of operating, and he is very much to be congratulated, because I recall, in my own experience, a number of cases, and not very far back in time, where I have lost the eye, not because of faulty technique, but simply because the corneal wound has been infected from a chronic discharge from the lachrymal apparatus.

Otto Scherer, Detroit: I really do not know what to say, except that I feel the paper Dr. Parker read is very valuable, and it certainly was very interesting to me. It brought to my mind this thought: any method of procedure, which tends to give us good results, as this seems to, is valuable, because it may in one case be valuable, while in another case another procedure is advisable. The thought that occurred to me is, that we have another method of combatting deleterious effects of infection with suppuration of the tear sac, by means of excision. But that cannot be used in every case and for that reason, I think his method is a valuable acquisition to our method of treating those cases.

Louis Goux, Detroit: The one thing in this operation which appeals to me particularly, outside of the prophylaxis against infection, is the advantage gained by the transparent conjunctiva which makes possible the immediate inspection of the cornea and other tissues beneath. This advantage is very valuable in watching the progress of the case.

C. H. Baker, Bay City: A paper with a new procedure for combatting difficulties which

arise so often is always valuable. In forming our judgment of the value of any operation we have to compare it, of course, with other procedures which have been in use for obtaining the same results. Now, I can understand very well that there may be cases of dachryocystitis that are not amenable to the method of extirpation of the lachrymal sac before the cataract is extracted. And in such cases as that this procedure is eminently the procedure to be selected, as I can very well believe from the good results that have been obtained in the cases so reported. But the question of extirpation should first be considered for two reasons. First, you secure a more perfect procedure for antisepsis, and prevention of infection. In the next place, you secure not only the prevention of infection, but you also secure the cure of a very nasty and disagreeable eye disease in and of itself. By extirpating the lachrymal sac you do away with suppuration, which is the cause of infection in these cases, and you secure the same results as in the cataract extraction without dachryocystitis.

Walter R. Parker, Detroit: I wish to thank the members of the section for the reception given my paper.

The procedure referred to is not intended as a substitute for the operation of extirpation of the sac in dachryocystitis. It is more applicable in cases of chronic inflammation of the lids, affording, it seems to me, one more recourse in these troublesome cases. In the two cases reported it worked admirably and the results were good.

THE VALUE OF CONSERVATIVE OPERATIONS ON THE UTERUS AND ITS APPENDAGES.*

W. P. MANTON,
Detroit.

Ephraim McDowell's splendid courage of conviction established an open door to abdominal surgery in 1809, but the path to this was beset by many dangers and few sought to tread its uncertain way

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until in 1847, Semmelweiss, an obstetrician, blazed a trail which led to the magnificent discoveries of Pasteur, Tyndall, and Lister, and developed a system by which comparatively safe entrance through the sacred peritoneal membrane was obtained. No wonder that when the barriers, which for generations had held the surgeon in check, were at last thrown down, radicalism became rampant, and not only the diseased uterus and its adnexa were ablated, but also healthy structures sacrificed on the slightest provocation. These uncompromising measures, while vastly destructive, were typical of newly gained power, and were of great usefulness, teaching important lessons; through them a knowledge of structure, the tolerance of organs to manipulation, and the pathology of disease were acquired and an improved technique developed. But after all was done and the lessons learned, the results left the surgeon still unsatisfied with the inadequacy of his work.

Many women still suffered after operations, although in other ways, often as severely as from the original malady. Radicalism had done its best, and with the limit reached, it was quite natural that the most prominent operators from their accumulated experience should hesitate and turn conservative. As early as 1840, Amussat had performed myomectomy, not, however, with the idea of conserving the uterus, but as an expedient. He was later followed by Washington Atlee and many others, who proved the possibilities of conservative work. It was not until the early seventies, however, that operations for the removal of disease with re-

construction of the affected organs began to be practiced.

Schroeder was the first to urge the advantages of this method of procedure, in pathological conditions of the ovaries and he was ably seconded by A. Martin, who extended the range of operation to fibroid tumors of the uterus. In this country Polk, Palmer Dudley, Burrage and many others have added largely to our knowledge of the subject and perfected technique.

In our consideration of the conservative operations on the uterus and its adnexa, it must not be forgotten that in a very large proportion of the patients who consult the specialist for surgical affections of the local organs, from the symptoms of which relief is sought, the conditions have already existed for so long a period, and have given rise to such extensive changes in the tissues involved, as to preclude the possibility of conservative treatment. There remains, however, a goodly percentage of cases in which the disease is limited, and in which the removal of the pathological process is possible without the destruction of the entire organ.

My own work in this line began more than ten years ago, but unfortunately the records of most of the early cases were not preserved, so that I am only able to furnish data of cases operated on during the past six years, and even this list is not entirely complete.

From 1898 to the present time, a period of about five years, I have records of sixty-two conservative operations on the uterus and its appendages in fifty-three patients. Of this number thirty-seven were married and sixteen were single. Classifying the operations there were:

Myomectomies	10*
Resection of right ovary.....	12
Resection of left ovary.....	8
Resection of both ovaries.....	6
Puncture of right ovary with destruc- tion of cysts.....	2
Puncture of left ovary with destruc- tion of cysts.....	6
Puncture of both ovaries with destruc- tion of cysts.....	6
Resection of right tube.....	4
Resection of left tube.....	4
Resection of right tube and ovary....	2
Resection of both tubes and ovaries...	2

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Of the fifty-three patients, fifty were relieved symptomatically, and as far as known have remained well. In one case, a married woman, the resected right ovary subsequently underwent degeneration developing a cyst as large as a mandarin orange and necessitating a second operation. In two other women, both married, the symptoms were only partially relieved. In both cases the reconstructed ovaries have undergone changes which demand their removal. As far as known, three of the married women have become pregnant (5.6 per cent.). One miscarried at the third month, one was successfully delivered at term of a living child, while the other is now at the end of gestation.**

Of the cases reported, there have been 94.3 per cent. of symptomatic cures; 5.6 per cent. of failures; 5.6 per cent. of pregnancies; and no deaths.

*See author's article: "Active Conservatism in the Surgical Treatment of Uterine Fibroids," Medical Age, February 25, 1899.

**This patient has since been delivered by high forceps of a living female child weighing eight pounds. The percentage of pregnancies in my list is much less than that obtained by Palmer Dudley, who found in a large series of cases furnished by different operators that nearly ten per cent. of conservative operations were followed by conception.

Compared with radical procedures, in which the mortality according to Hector Treub's latest statistics is from five to six per cent. in the hands of the best operators, the mortality from conservative operations, at the very highest but two per cent., is certainly in favor of the latter. The percentage of somatic cure in either procedure is more difficult to estimate, but from the literature of the two methods one is readily convinced that conservatism offers the better prospects for the patient's future. But symptomatic cure is not all that must be considered in this connection, and the true value of conservative surgery of the pelvic organs cannot be estimated alone from this point of view. In formulating conclusions, we must take note of the more rapid convalescence following reconstructive surgery; the more satisfactory improvement in the general health of the patient; the maintenance of the normal functions of the reproductive organs, and the possibility of future pregnancy which nondestructive surgery alone can offer.

Extirpation of the ovaries, besides imposing sterility, deprives the system of the internal secretion of these organs—a principle absolutely necessary under ordinary conditions to the continuance of somatic well-being, and the absence of which, as Brown Sequard long ago pointed out, is felt by the whole economy. Ablation of the uterus deprives the individual of the hope of maternity, and in this way, as well as reflexly, may lead to both mental and bodily disturbance. To the candid mind there can be no question as to the value of conservatism as against radicalism.

DISCUSSION.

Reuben Peterson, Ann Arbor: I think this too valuable a paper to go by without discus-

sion, and also too interesting a subject. It is a subject that every operating surgeon and gynecologist must consider. I must confess that I have not settled the question as definitely as Dr. Manton has. I have too many of these patients returning after resection of the ovaries and demanding a second operation. Now, it may be that I do not select my cases as well as the doctor does, and, again, possibly my technique is not as good. I have done a good deal of this conservative surgery. I have resected the ovaries; I have resected the uterus, and I have taken out what seemed to be diseased portions, and I must confess I do it less frequently now than formerly for two reasons: One reason I stated—that these cases have come back from time to time and are not cured. Secondly, because when I sent the removed tissue to the pathologist he returned it with the report that it was practically within the normal limits. Now I have relegated to the past certain conservative operations on the tubes, which I formerly did. I used to take the tubes where the fimbriated extremities were closed and opened them, stitching the mucus to the peritoneal coat, trusting that by this method the tube would be kept open and the woman would become subsequently pregnant. In one or two cases this happened; in more cases I must confess the women suffered from a return of the symptoms, and subsequently I removed the tube and found that it had become glued again to the edge of the pelvis and in some cases the tube had closed entirely. Now all of these experiences in my hands have led me to question the advisability of promiscuous, so-called conservative, operations. Now, of course, while perhaps not strictly scientific, yet still having a bearing upon this question, is the testimony of the patients themselves. You take a woman who has undergone an operation where so-called conservative surgery has been employed, and she goes through a second operation, that woman says to her neighbor, and the neighbor repeats it to the next one, that the operation was not successful. The patients who are within reach of this patient where the operation has failed will come to you and say: "Doctor, I do not want any experiments; I have had three children already, and I want to be cured and must be cured for the sake of my family. I cannot have that tube opened as you have told about and an attempt made to give me another child and, possibly, have my symptoms remain as they are." We must take into consideration the wishes of the patient. Of course, it sterilizes them if we remove the appendages, but

even so, where there is only a certain proportion of these cases which become pregnant afterwards, I know that if I were a woman and if I were suffering as these women do who come to us, I should certainly say: "Give me my health first, by all means." Consequently I am studying my cases. I am doing this conservative surgery all the time, but I am not doing it nearly as promiscuously as I did four or five years ago.

Richard R. Smith, Grand Rapids: I have been doing this conservative work for four or five years, perhaps longer, and my experience has led me to the adoption of about the following rule: When the question of the ovaries comes up I like to be conservative. As Dr. Peterson has said, a great many ovaries that were formerly considered pathological are not so. They are not in reality the cause of the pain and disturbance from which the patient is suffering, and they can be preserved and the health of the patient obtained. The advantages are that she goes on menstruating; that she preserves the normal functions of her organs. On the other hand, with the tubes my observations have led me to be less and less conservative; that is, if I find a tube that is thickened, that is in any way abnormal even though it may not be anything more than the closing of the fimbriated extremity, I believe in its removal. The tube has but one function as far as we know; it conveys the ovum to the uterus. It has been pretty well shown that where these tubes are preserved but a small percentage of those women become pregnant anyway. On the other hand where secondary operations are performed, the majority of those cases are operated upon because of a following inflammation in the tube, that is, the tube forms the nidus of infection and makes the future trouble. Therefore, while I believe in preserving an ovary, I do not believe in preserving a tube which is thickened or diseased, and I believe in removing it altogether. My results in doing this conservative work have been excellent.

W. P. Manton, Detroit: This is a large subject and it would take a long time to go over all the details of the objections which Dr. Peterson has made. Of course we understand that they have one of the finest pathological laboratories in the country at Ann Arbor, and I can easily understand why they prefer to take out organs rather than to preserve them. As a matter of fact, those who have done the most in this line of work are the men who are the most enthusiastic over it. I did not

mention anything about the operations, because in a section of this kind everybody is supposed to know how these things are done. I can say briefly that the ovary may be cut in any part transversely, it may be split through the center and cysts removed, or portions of the ovary removed as long as a minute portion forming the germ cells is left behind. It is not always necessary to stitch the ovary after operating. The wound may be left open, but usually where there is a large opening I prefer to put in a stitch or two, either of fine silk or catgut.

In the matter of tubal disease, we usually find in chronic cases dilatation, the distal portion,—small pus tubes, etc.—and for an inch and a half or two inches nearest the uterus the tube is usually in practically a normal condition. The reason is that that portion drains off through the uterus. Now if in a case that has not advanced too far the closed fimbriated extremity be opened up and thoroughly washed out with an antiseptic preparation and a new mouth made, the edges stitched or not in the majority of cases—not every case, but in the majority—that mouth of the tube will remain open and the ovum will pass through to the uterus. In case of a pustube the pus is pocketed and you will find within an inch or two of the uterine extremity a diaphragm shutting it off so that it cannot drain and the secretion is consequently increasing and enlarging the tube, and if you will remove a portion, say two-thirds of the tube, and make a new ostium, stitching the mucosa, and then stitching the ovary to the new mouth,—you have preserved the functions of the tube and in the majority of cases, if done carefully, you will have success. I have had a number of cases of that kind where the symptoms have been entirely removed and where the tubes were as large as my wrist. I published a paper some three or four years ago on the conservative treatment of the fibroid uterus in which I advocated myomectomy, rather than total annihilation of the uterus. I have had a number of these cases of uterine fibroids in which I have taken out the nodes and then stitched up the uterus. These patients have made a good recovery, and as far as I have been able to ascertain—and some patients I followed for years—there has been no subsequent return. My own percentage of pregnancies is comparatively small.

In a paper read before the American Medical Association at New Orleans last May Dr. Dudley who had collected a number of hun-

dred—I don't remember just exactly the number, but a good many hundred cases of conservative operations—found that in the sum total 10 per cent. became pregnant. If we can save 10 per cent. of women in this way, it is well worth trying. Out of my 53 cases reported, only three cases, as far as I have been able to ascertain, have had any subsequent trouble. I am sure that I have operated a good many more than a hundred times in this way, and I do not recall more than two or three cases where I have had to do a second operation for this trouble. I think the tendency of gynecologists and abdominal surgeons is to conservative work, and I think the more this thing is looked into the better it will be received, and it is unquestionably the surgery of the future. Total ablation is destructive, and it is often doing the patient more harm than good; while conservative, as the term implies, conserves the well being of the woman and relieves her of all symptoms.

THE REMOVAL OF THE APPENDIX DURING ABDOMINAL SECTION.*

J. H. CARSTENS,
Detroit.

As surgical technics improved and aseptic surgery was perfected, it was found that more than one operation could be easily done when the patient was under an anesthetic. Now even six, seven and eight operations are performed at one time. As the appendix is a useless organ it has been advocated by some to always remove it when the abdomen is open.

This is easily said, as if it was simplicity itself, but the removal of the appendix is quite a difficult and certainly a very delicate operation. If it is bound down by adhesions it is quite a job to dig it out and not injure other structures. The

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removal of the appendix itself is quite delicate. It is so easy to get infection from its contents, and only the greatest care will prevent contamination of surrounding tissues. Quite a little time is occupied in performing this operation, so that all around it is not by any means a one-sided affair. If the appendix is loose and easily removed it can be done, as a rule, without increasing the danger to the patient. But of what use is it to remove it then? The patient will not get appendicitis, as those kind of appendices are not often subject to accumulation in the interior and the resulting inflammation and infection. So that I would not lay down for *my dictum*, "that in every case when the abdomen is open the appendix should be removed."

It may be said that it is a very simple operation and in a flippant manner lay down such a rule, but I would warn against it. By considering it a serious thing to remove even a healthy appendix, *is such care exercised as is essential to success.*

We have a great many cases where there is involvement of the appendix, secondary to tubal or ovarian disease. Yes, there are even many cases where it is difficult to say whether the disease originates in the tube or the appendix. Yes, there are even cases where it is impossible to say that the disease is in the appendix or is in the tube. The temperature, the pulse, the onset, and the whole history of the case would make you diagnosticate one condition, and when you operate, you find the other. In many cases both are involved independently of the other. All we can tell in these complicated cases is that there is some serious trouble requiring operation, and let the operation be to

a certain extent exploratory. If the disease is in the tube, why, remove it. The same with the appendix, but if they are both involved, then I say remove them both.

However, there are another class of cases, simple ovarian tumors or fibroids, or any other kind of tumors or condition requiring celiotomy in which the appendix is not involved. However, in such cases we sometimes find that the appendix is of such an anatomical structure or as the result of previous inflammatory condition there has occurred adhesions and kinking or twisting of the appendix; in short, it is one of those appendices which we know by experience is very liable to become inflamed. In such cases it seems to me, not only right for the operator to remove the useless organ, but that it becomes a duty to remove it and prevent future trouble, which in all probability will occur in the course of time.

But even in these cases there are conditions when it is best not to remove the appendix. If the operation has been a very serious one with extensive adhesions or other complications have arisen; or if the patient is very weak from long continued disease or severe hemorrhage, it is best not to prolong the operation even for ten minutes by removing the appendix. You better let it alone, but warn the patient, if necessary, to have prompt interference if any symptoms of appendicular trouble should arise.

In some cases I have found that there is a fecal concretion in the appendix and we know by experience that fecal concretion often leads to acute inflammation of this organ. During distention of the bowels from constipation or other causes, some fecal matter got in and when the cecum contracted the concretion could not

get out on account of the contraction or valve at the junction of the appendix to the cecum.

Such concretions remain there perfectly quiescent, but are liable to break out at any time. In such cases I have been in the habit of stripping the appendix from its tip upwards to the cecum and forcing the concretion and contents of the appendix into the cecum which takes but a minute, and it seems to me, may prevent trouble in the future. Inversion of the appendix has been advocated instead of removal, and I have made use of it and found it valuable in some cases, but it is not so easily performed as some people think. As a rule, the appendix can be removed quicker, and with a strictured organ it is inverted with great difficulty, in fact often tears and the contents escape and contaminate the surrounding tissues. The appendices with large openings, which can easily be inverted do not require it nor is removal necessary.

From my experience I would say, that barely five per cent. of cases of abdominal section require removal of the appendix. In fact, as far as I have been able to find out, not more than one patient in a thousand that has celiotomy, is afterwards affected with appendicitis. It is certainly very rare in my experience.

To sum up I would say:

First. That the removal of the appendix during abdominal section is not indicated or justified except when the appendix is involved in the inflammatory condition, or the growth for which the operation is performed.

Second. In cases where the anatomical structure of the appendix is such that it is liable to become inflamed; or when it is twisted or kinked by inflammation

and is liable to cause trouble, then it should be removed.

Third. When it contains foreign bodies (of whatever kind) then it is best to remove it or at least strip it and force its contents into the cecum, or in some cases invert it.

Fourth. After difficult prolonged operations or in debilitated patients the normal appendix be better left alone.

DISCUSSION.

L. J. Hirschman, Detroit: This paper I think is a most timely one to the younger men who are working along similar lines and comes as a note of warning from one of our pioneers, and it is one of the best things which could have happened at this time. We find that often some men in doing abdominal surgery are apt to want to increase the number of operations they have done, and frequently want to remove an appendix because it adds another appendectomy to their list. But at this time, coming from the authoritative source that it does, I think this warning is most timely; because very often in cases which require abdominal section, the average man who operates but semi-occasionally takes a long time in performing the operation and then wants to complete the job by removing the appendix, excusing himself by stating that he wants to prevent an attack of appendicitis; and he takes more time and perhaps just enough more time to lessen that patient's chances of recovery by interfering with the appendix. Moreover, a man who successfully removes the appendix while performing the abdominal operation very often in his hurry to finish the work does not properly close the stump, and even though the rest of the operation may be clean, he gets in five or six days a fecal fistula, resulting from what was perhaps a perfectly normal appendix. For all of these reasons I think the doctor is to be commended for giving us this paper at this time. A twisted appendix or one with a short pedicle, with evidence of having had former attacks, I believe should be removed. I would like to have Dr. Carstens tell us whether it would not be wiser to remove every appendix in which concretions are found; because by stripping it back and removing the deposit (while it may remedy the difficulty for a time);

yet if it is in such shape that concretions can form, why not remove it so that it cannot occur in another attack of constipation.

T. S. Burr, Ann Arbor: I think Dr. Carstens' statement that he would not remove the appendix in cases where the patient would not stand the operation well, where there was some particular reason why the operation should be hurried and the abdomen closed, is correct. On the whole, I think these statements in regard to removing the appendix when it is diseased, when it is associated with tubal disease or shows evidence of previous involvement, are all right. But it seems to me that when he states that he would not remove a normal appendix, there is possibly a chance for criticism, because it is often hard to tell whether an appendix is normal or not. In 93 laparotomies performed at the university hospital we have taken out the appendix in every case with the exception of one or two where the operation was severe and the patient could not have stood the shock. In 33 1/3 per cent. of these cases we found evidence of previous appendicular trouble. In four or five there was acute or sub-acute appendicitis present at the time, although the patient gave no symptom of it before the operation. In many cases where the appendix looked to be perfectly normal, the microscope showed undoubted evidence that at some previous time there had been infection. Of course a man who is going to use a great deal of time in doing a pelvic operation might not be justified in taking the additional time to remove an appendix; but if the operator is reasonably skilful and can complete his operation with some celerity, I believe it is pretty good practice to remove it. Dr. Carstens' views on appendicitis are usually just about correct. I have read a number of his articles and admire the stand he has taken, but I don't see why there should be an objection to taking out an appendix which is easily removed, when there are no contraindications, and the abdomen is open for the purposes. The region can be walled with gauze, and the danger reduced to a minimum. The appendectomy should not be done hurriedly or for the purpose of adding one more appendix to our belt, but to remove a source of danger, and I think source of real danger.

W. Bishop, Bay City: Up in our neck of the woods, where I am engaged in a small way in performing surgical operations, I have in a number of instances made a diagnosis of ap-

pendicitis for some men who had not seen many abdomens opened and who were not familiar with the external appearance of an appendix. They most always expect to see it ruptured, and I was afraid that when they saw it they would not be impressed with the importance of the operation. I was afraid they would conceive the idea that it was not appendicitis. After taking the appendix out and slitting it open and subjecting it to a microscopical examination and finding that it was choked with fecal matter, I have always felt absolutely justified in having taken it out, even though I found no other condition.

I was interested in Dr. Carstens' statement that he stripped the appendix and forced the concretions into the caecum. Personally, from the good my patients have derived from removing that kind of an appendix, I would think it would be for the best interests of the patient, if we find fecal matter or fecal concretions in the appendix, to remove it. I do not see the force of the comparison between an appendix and an ovary; because in one instance you have a functioning organ which is quite essential to the peace and welfare of humanity, and on the other hand, if you take out the appendix, it will do good instead of harm.

W. Appelbe, Detroit. I would like to ask Dr. Carstens in regard to these fecal concretions. Being interested in pathology, I have examined some of the substances from these appendices which were supposed to have been fecal concretions, and I have never seen an appendix which contained a fecal concretion, although I have examined quite a number of articles which were brought to me that were derived from such source, such as calcific material resembling very much the same thing that I have gotten from tuberculosis. But I question very much if Dr. Carstens is strictly correct in saying that the caecum distention widens the opening of the appendix. I think I have only seen one experiment made on the caecum, and in that case the more we distended the caecum the closer we contracted the aperture of the appendix. For that reason I am inclined to think some of these concretions are produced by obstruction of the circulation.

In regard to the suggestion that the appendix should be removed because of no use, I think if we were to remove all the organs that are of no use, some of us would be going about minus a good deal of our anatomy.

F. B. Walker, Detroit: I think the word "meddlesome" that some one used is a

pretty good word in this discussion. I think there is a tendency in surgery, as there used to be in medicine, to try to do too much and too many unnecessary things. I cannot see any reason for removing a normal appendix. Some one used the term in comparison with an ovary. There is some difference between an ovary and an appendix, and yet we do not know—at least, we don't know with satisfaction, what the appendix is for. We say it is useless, but that does not settle the matter necessarily. We might just as well apply the same rule, it seems to me, to the gall bladder as to the appendix; I think better, perhaps, than to the ovary. No one would think of removing every gall bladder. We have not got to that point—perhaps we will some time, if we keep on. But I think we are inclined to try to do too much. People know so much about appendicitis now, compared with what they used to, that it is not difficult at all to persuade some people to have the appendix taken out. They will come to the doctor with an attack of indigestion, pure and simple, and they are mightily afraid that they have appendicitis, and if you are a little clever you can talk them into an operation. It seems to me that the only rational view to take is that you take in your own case, or some one dear to you and you will get rid of this feeling or desire to risk something where there is no necessity for it and where you can come down to plain, common sense in the matter.

Reuben Peterson, Ann Arbor: Unfortunately, I was unable to be present when the doctor read his paper. But from what I can judge from the discussion there are a number of points I would like to speak upon in regard to the removal of the appendix in connection with diseases of the genitalia. I judge the operating for appendicitis, where the incision is made for the disease in question, and the removal of the appendix after the abdomen or pelvis has been opened are entirely different affairs. It seems to me that the question before us is still open for discussion. We do not know whether we should remove the appendix or not in cases of pelvic disease requiring a laparotomy. During the last two years I have been trying to study this question practically by the removal of the appendix in every case where the life of the patient was not jeopardized by the prolongation of the operation for about five minutes. It seemed to me that by a removal of the appendix in those cases where we operated upon the pelvic organs for another disease and by a microscopic study of the removed tissue, we might arrive at some con-

clusion. I am not ready to report as yet the results of my studies in this direction, but in this connection I will give a few facts. Dr. Mulheron stated that in a thousand autopsies—I don't think he mentioned whether on women entirely—but in a thousand autopsies only two per cent. showed evidence of appendicitis. Now, such figures are entirely different from my own results. I have removed in the last two years about 120 appendices in connection with diseased genitalia. Ninety-three of these have been subjected to a microscopic examination. I have the notes before me upon the position, size and diseases of the appendix. As I say, ninety-three of them have been subjected to a microscopic examination. The results of those examinations showed that out of the ninety-three cases, forty-eight, or over fifty per cent., showed appendicitis in some form or another, either sub-acute or acute or evidence of late trouble. Now, it seems to me that in the light of these facts we cannot answer this question off hand. We cannot say when we look at the appendix that it is perfectly normal and does not need removal. If we removed appendices that look to be normal, we will find upon a microscopic examination, that most of these appendices show evidence of chronic disease or that they are in a sub-acute stage of inflammation, and that they are liable to give trouble to the women at any time. I submit these figures for your thoughtful consideration. Now, no one wants to remove anything in the pelvis or abdomen or anywhere else, which is not diseased and which does not need removing. That question has been settled long ago. We do not remove ovaries now just for the sake of taking them out and perfecting out technique. Years ago, when we began and knew less than we do now about pelvic and abdominal surgery we removed them because we thought they were diseased, and now we can tell by sight whether they are or not. It may be that the results of future investigations will show that the same is true about the appendix, but the only way we acquire knowledge regarding various pelvic and abdominal phenomena is by the removal and study of these organs. Now, I do not think that anybody will place in the same category the appendix and the ovary. Certainly the appendix is of very little use to us. I know that it has been claimed that there is some use for it, but personally I would far rather have my appendix in a bottle than I would to have it within my own abdomen, and I find that the majority of my patients feel the same way. I have not removed

the appendix in all these cases without ascertaining the wishes of my patients in that regard, because although mine is more or less of a public clinic, still I want to treat those patients, and I try to treat them just the same as my private patients. To show you how patients feel in regard to this matter: The other day a patient stopped me when I was making the rounds of the ward and said: "Doctor, the assistant tells me you did not remove my appendix, and I am very sorry, because I wanted it removed." She pointed to a patient in the next bed and said: "That patient has her appendix out and she can never have appendicitis." That is not particularly scientific, but it shows that as far as the patients' wishes are concerned, the removal of the appendix and the ovaries is in an entirely different category. I have removed what appeared to be a normal appendix and the microscopic examination showed that it was ulcerated and that it might at any time cause the patient trouble, although if I had been judging of the removal solely upon the appearance of the organ, I should have left it in.

In regard to the added shock or the difficulties resulting from the removal of the appendix: In not one of these cases apparently has it caused any trouble. Now I do not say it will never cause trouble because even in our simplest operations we have once in a while bad results, but I think we can class appendectomy, the removal of such an appendix as we are considering, as among the simplest operations. Out of a hundred or two or three hundred cases, you might possibly get once in a while a bad result from the ligature slipping and allowing some of the fecal matter to escape, but where the stump is buried under the serosa this is not very likely to occur. So I will say again, we are by no means able to answer this question yet, and it will take many more cases and the testimony of many operators before we can definitely settle the subject.

J. G. Lynds, Ann Arbor: I would like, in a few words, to say I agree thoroughly with Dr. Carstens' ideas in regard to the removal of the appendix in abdominal operations when it is diseased. When it is healthy, leave it alone. I do not believe that the removal of even a healthy appendix when the abdomen is open is without danger; for I think that some good men who advocated it quite strongly at one time have practically given it up, because they found that their mortality was considerably increased when they

did remove the appendix in those cases. I have very recently seen a case where the removal of an apparently normal appendix was followed by repeated attacks that corresponded in every respect with attacks of appendicitis, e. g. elevation of temperature, together with pain and tenderness over the region where the appendix had been; whereas, previous to its removal the patient had had no trouble. Whether or not this was due to a faulty operation, I would not say. Then I have, in several cases, seen abscesses form which had to be opened up by a second operation. Again, I believe that you have to make a larger incision in the abdomen than you do to attend to the pelvic trouble to get at the appendix, to pull it over into the pelvis without making a pretty long incision; you are liable to tear the attachments and the peritoneum considerably. For my part, I don't see any difference in removing a healthy appendix or an ovary, especially after the menopause or near the menopause. I do not see that an ovary after the menopause has any further function than an appendix, and I do not think it is proven by any means that the appendix is without function. So far as removing a healthy organ, I say you might as well remove a healthy ovary as a healthy appendix. Of course the question as to how many appendices are diseased is an open one, and the fact which Dr. Carstens mentions that one out of a thousand cases of abdominal operations develops appendicitis, is certainly not very strongly in favor of removing the appendix unless found diseased.

M. Willson, Port Huron: In discussing this matter we must bear in mind what we should always bear in mind in discussing medical questions, and that is the factor of human error and the environment. Now we all know that in the examination of pathological specimens the most expert of these examiners come across cases that they are unable to decide for themselves to what category they shall relegate them, as in the case of certain fibromas, or whether a growth is to be classed as sarcoma or carcinoma. So in the examination and the removal of the appendix, it will depend to some extent upon the environment and certain other elements which unconsciously influence the examiner. There are a great many cases in which there is no doubt, and then there are a great many more in which it is impossible for the examiner to determine whether he shall class them as

pathological or not. Here is a fact I say which must be taken into account. Common sense would teach us not to touch a healthy appendix any more than a healthy organ of any other kind. There is what we might call a present appendiphobia; everybody is afraid of his or her appendix, and you can't have common colic but what the idea of the sufferer immediately reverts to his appendix; and as one has remarked, a skilful manipulator of men has no difficulty in multiplying his appendectomies very largely, if he wants to. Of course, the primary consideration with all honorable men is the welfare of their patients; their own records and statistics being secondary.

C. K. La Huis, Kalamazoo: I would like to disagree with the author of the paper in one regard. If I understand Dr. Carstens correctly, he says that even in cases where the patient's life is not imperiled by prolonged anesthesia he strips the appendix and turns the concretions back into the caecum. I do certainly think that where an appendix has at one time contained a concretion that that appendix is by far better out, unless the patient's condition will not allow prolonged anesthesia. I feel very sure that if Dr. Carstens for one reason or another ever opened my abdomen and finds a concretion in the appendix and strips it back into the bowel, leaving the appendix and giving it another chance to cause trouble, I should be displeased when I woke up. I have had a little experience with appendiphobia, and it is not very pleasant to have an appendix in one's anatomy that is not normal. I should certainly feel very much concerned about it afterwards, if I knew that my appendix had contained a concretion and the same had been removed by Dr. Carstens' stripping method.

J. H. Carstens, Detroit: Some years ago I tried to look up the statistics and find out how often you find appendicitis, what proportion of the community have appendicitis. Although the newspapers may write a great deal about it, as they do about Dr. Lorenz, I know there are very few cases of congenital dislocations of the hip, and I know that the proportion of cases of inflammation of the appendix is not near as great as the laity may think, and as some physicians may think. At that time I stated, that from what I could find out, there was not one person in a hundred ever afflicted with appendicitis. In

the city of Detroit, with 300,000 inhabitants, you cannot find a hundred cases, I think, in a year. I think the statement of Dr. Mulheron, in which he gives about two per cent. in Vienna is about the highest you can possibly get, and they probably stretched the point and made it just as high as they could. Anyone that had even the slightest suggestion of having had trouble with the appendix they put in there, and they could only find two per cent. Hence, if you operate on a hundred patients and remove all those appendices, of which only one patient would ever have any appendicitis, I know you will kill at least two or three, and I don't think that is good practice. That is the reason I read this paper and made this kind of a statement. The thing all resolves itself to this: You may rely upon your statistics if you like, but I do a few cases a year of abdominal section, and have been doing so for a good many years, and I may say that in all my experience I have only seen two cases that afterwards were afflicted with appendicitis, and I suppose I have had several thousand cases—I have not figured them all up; I am going to do so some day. It is a very rare thing, and I know that these patients, while there might have been one or two who escaped and went somewhere else, I am quite sure most of them would have returned to me and told me their condition and had me operate on them again. I say it is a very rare thing for a patient to be afflicted with appendicitis after he has had abdominal section. The reason is apparent, because in those cases of abdominal section where the appendix is involved you remove it. Those people are excluded. Suppose those are five per cent.; that covers the whole ground; the rest are not really subject to it. Once in a while one may be subject to it. One of the gentlemen said he had a lot of appendices examined and he found something the matter with all of them. You do sometimes find something; you sometimes have an acute attack of appendicitis and you open the abdomen and operate for it. You may think there is nothing the matter, and you make a careful examination of the contents and you will find that there has been a micro-organism present; you examine that appendix and you find it is diseased. When you take a normal healthy appendix and by manipulation and compression you more or less injure and bruise it, or squeeze it, loosening some epithelium, and a microscopist examines it, he says that it is diseased. If you hadn't touched it, it

would not have been diseased. If I express that concretion I may possibly loosen the epithelium somewhere, but I do not think I do; I have not had any cases where I have produced that, as far as I know, I do not do it very often.

As far as this being fecal or something else does not make much difference to me. I know myself it is fecal; I don't care what any microscopist says, because I know what feces are just as good as he. I know that sometimes fecal matter gets in there, (the liquid part is absorbed), and becomes hard; then another layer is formed and, by and by, a little liquid feces will get in there again and cover it over and another layer is formed; so you have concentric layers, sometimes mucus, sometimes fecal. That fecal matter may be calcareous or contain little grains of sand. Whatever they are they may remain there and become hard. I want to say it don't make any difference whether it is fecal or anything else. How many cases have you had where there is fecal concretion or any other kind of concretion. They talk about it as though the woods were full of it, but they are not. You do not find such a condition in five per cent. of the cases where there is a fecal concretion in the appendix; I doubt whether there is more than one or two per cent. Consequently these fecal concretions do not get into the appendix very often. It is an unusual thing for anything to get in the appendix. Now, if by some combination of circumstances somebody got something in his appendix, which would not happen again once in a hundred times, and I squeezed or pressed it out, his chances to get it again as I say, would not be one in a hundred; so I think I have saved him a good deal of trouble. The point I make is this: that while perhaps in the majority of operations in which you remove the appendix, the patient gets well, still some do not. Some die from simple causes. If you have a patient who is already sick, who has a tumor or an abscess or anything whatever, and you open the abdomen, you have to prolong that operation by removing the appendix and you increase the risk so much, and it may be only one per cent., two per cent., or a half per cent., but you increase the risk by prolonging the anesthesia. Then, again, the danger of the operation itself, of getting

infection from the appendix, also increases the danger, and a certain percentage more will die. It depends a great deal on the technique. Some don't know how to remove the appendix; they never will. They will cut it off, cauterize it, shove it in and let it go, but that is not the ideal way to make an appendectomy. The way to do is to bring muscle to muscle and serosa to serosa. When you do that you don't have a secondary attack of appendicitis, and you don't have any trouble afterwards. So the whole central point of my paper is this: To warn against this easy, flippant kind of manner of taking out the appendix. I want to warn against it. With a normal healthy appendix there is no need of removing it any more than anything else. If it is easily removed, what is the use of removing it. When I get one of those that has a big opening, and things slip in there and out, I know that patient will never have appendicitis, as nothing can collect in there. If I have a long one, 7 or 8 inches long, which I think is likely to give me trouble, I take it out as a general rule.

If the appendix is adherent and has grown tight to some of the other organs and been perhaps affected, I take it out.

If it is normal and healthy, let it alone. What I simply plead for is simplicity. Do not remove the appendix simply because it is an appendix, and because you think you are doing a great thing. There is, once in a while, a case where the patient tells you they want it out. They say, "when you operate on me take out my appendix." That is different. In that case you can do it. If you do it without the patient's consent, for all you know they may sue you for damages. You have no right to remove an appendix any more than an ovary or anything else without the specific consent of the patient. You can remove the appendix if you have their specific instruction to do anything you see fit. But if you were requested to remove an ovarian tumor and then removed the appendix, they might say that it increased the danger, and sue you for damages. So I would warn you against doing it, and I want to make the warning especially to the younger men, that the additional operation of appendectomy is a serious matter in some cases, and they should go a little slow and not be too smart about it.

RECTAL EXAMINATION.*

ITS IMPORTANCE AND VALUE IN GENERAL PRACTICE.

LOUIS J. HIRSCHMAN,
Detroit.

If there is any class of disease to which human flesh is heir, which emphatically calls for local examination, it is that large group of affections, which either directly or indirectly, are concerned with pathological lesions, the seat of which is in the rectum or anus.

A large proportion of the practice of the general medical man is made up of cases, whose departure from health is dependent upon some disturbance in the relation between the ingress of the food and the excretion of waste products.

With the possible exception of the urinary tract, the most important avenue of excretion is the lower bowel and the part in which we are interested principally at this time; its termination, the rectum and anus.

The careful and conscientious practitioner, when a case involving any portion of the respiratory system presents itself at his office for treatment, immediately suggests a physical examination of those organs; likewise symptoms of cardiac trouble call for immediate examination of the heart, the condition of the blood vessels, pulse, etc. When a woman calls at your office complaining of symptoms which are dependent upon some derangement of the female genital organs, a local examination is immediately suggested, for how can we treat any cases of this kind without knowing the exact condition

of the parts; and how can we know the exact condition of any part of the body without a thorough examination?

What has been said of the above diseases might be said with equal emphasis of all diseases of those organs which are accessible to physical examination. Why it is, that patients suffering from diseases arising from disturbance in the proctological area, should be treated by simple giving of drugs and dietary instructions for months by many (in fact, by most) general practitioners of medicine, without even the suggestion of a rectal examination; is beyond my comprehension. Of course the examination of the rectum is not a particularly pleasant duty to perform, and some patients are greatly embarrassed by the request to expose the rectum for proper examination; but to my mind, after considerable experience both in gynaecological and proctological practice, I must confess that the present method of examination of the rectum is in a great many cases to me, a far more agreeable task than many vaginal examinations I have made. To pretend to be able to make a correct diagnosis of rectal diseases without a thorough examination of the parts, is as absurd and unscientific as to make a diagnosis of valvular heart disease without listening to the heart's sounds.

It is very essential in all cases, which present themselves in which, the recital of the symptoms would lead one to suspect any interference with rectal elimination (whether the symptoms are direct or reflex); to make a thorough rectal examination at once. Very often, beginning malignant diseases can be discovered early enough to successfully combat and cure. Small ulcers, hemorrhoids, beginning fistulae, polypi and other conditions

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may also be discovered early enough to be successfully treated by any general practitioner. Here, more than in any other portion of the body, diseases are more liable to progress rapidly and even when a tardy examination is made, the patient's condition may be hopeless. In a great many reflexes, in which the seat of the pathological process is not apparent, it is surprising in how many cases a rectal examination will serve to clear up the obscurity of diagnosis. Many cases of urinary distress, incontinence, impotence, tenesmus, sciatica, intestinal flatulence, headache, loss of appetite, back-ache and various skin affections may be found due to some pathological condition, the seat of which is found in the limits of the rectum. For the sake of your patient's comfort and your own reputation as a conscientious practitioner, I would make a plea for a more careful, a more thorough, more scientific and a more complete examination of the rectum and anus, than has been the practice of most of us in the past; in order that a great many of the conditions which have been allowed to lag and drag, may be arrested and relieved more promptly!

It is my purpose to outline a satisfactory scheme for the examination of the rectum by any physician. In the first place, it is almost needless to say that a history of the trouble should be inquired into, in detail; and let me say here that the method of questioning the patient is of vital importance to the patient's confidence in his physician. It is always my rule to first allow the patient to tell his story in his own words. If he is a stranger, it puts him more at his ease. After he has done so, then questioning by the physician in regard to his habits,

occupation, environments, family history, etc., should follow.

Symptoms which he has mentioned in the course of his recital and which would justify your request for a rectal examination, may be enumerated as follows:

First. Indigestion, loss of appetite, flatulence, constipation and any irregularity in the action of the bowels.

Second. Intestinal aching, pains throughout the pelvic or sacral regions, or shooting pains down the legs, sense of constriction or weight in the body and pelvis (particularly in males).

Third. Spasmodic or constant dysuria or other genito-urinary disturbance.

Fourth. Undue looseness of the bowels and the changed appearance of the fecal excretion: such as the presence of mucus, pus and blood. In women, in my opinion, no gynæcological examination is complete without a rectal examination included.

Fifth. In children, restlessness at night, picking of the nose, precocious appetite, scratching or fingering of the rectum or anus or genital organs should call for a rectal examination.

Of course, a great many of the above named symptoms may arise from other conditions, but a surprisingly large number of them will disappear upon treatment of conditions discovered on rectal examination. Reflex symptoms, like those above mentioned, are often more important to the regular practitioner than to the rectal specialist, because people who consult a rectal specialist do so because they have symptoms which lead them to suspect rectal trouble. Those who consult general practitioners come for a diagnosis. When rectal trouble is suspected, the condition of the bowels should be inquired into, the shape of the stool, its color, odor,

consistency, frequency or infrequency of passage; whether attended by pain; tenesmus; straining and whether containing blood, mucus, particles of undigested food, etc., etc.

If pain is complained of, the point of pain, the kind of pain, the duration and the nature of the pain are all important in order to make the proper diagnosis. Itching, burning, and spasm of the sphincter are important points to bring out. The patient should also be asked if the rectum protrudes at stool and if so, if after much straining or upon slight exertion; and whether it disappears spontaneously or whether it must be replaced by him. If so, whether easily or with difficulty. It is also important to know whether the protruded part is hard, soft or nodular; whether it bleeds or not and whether it is painful to the touch or not. The habits of the patient, his occupation and personal history must be gone into. Whether he is an habitual user of cathartics or enemas; whether he has a venereal or tubercular history; whether the desire to go to stool is satisfied at the time, or whether there is a feeling as though something remained in the rectum, even after all efforts to defecate are exhausted; whether he has a regular time for going to stool daily; and whether he is in the habit of sitting long at stool or not.

After eliciting as complete a history as can be procured, the patient may be prepared for a local examination. An ordinary examination chair or table is sufficient. Either reflected daylight or electric head light is best for rectal work. The electric head light has given me the most satisfaction. Vaseline or glycerine may be used as lubricant for fingers or instruments. For examination of the perineum and external parts, or digital exam-

ination of the rectum, the left lateral or Simm's position or the lithotomy position will suffice, but in order to make a complete ocular inspection of the interior of the rectum and sigmoid, it is essential to place the patient in the knee chest position and to inflate the rectum. The accompanying charts will illustrate the correct position for inflating the rectum by atmospheric pressure and making the most satisfactory examination. A number of chairs and tables have been devised for holding the patient in this position but they are not essential to the successful examination of the rectum in this position.

The technique of a proper ocular inspection of the rectum is as follows:

The patient having been placed in the knee chest position, and the inspection of the external parts and the digital examination having been made (or in the case of the female, the bimanual examination as well) the tubular proctoscope with the obturator, fitted with a conical extremity, is gently but firmly pressed against the anus slightly downwards towards the umbilicus; and the patient is asked to bear down. The sphincter will grasp the speculum; it enters easily and painlessly into the rectal cavity. I might say, that if the entrance of the proctoscope occasions pain, the injection of a few drops of a 1 per cent. solution of cocain or eucain will render proctoscopy painless. When the obturator has been withdrawn, the atmospheric pressure causes the rectum to balloon and the air rushes in audibly. If the rectum seems to terminate at the end of the speculum, this apparent obstruction, by manipulation of the instrument to one side or the other, is found to be due to the impingement of the instrument against one of the valves of the

rectum. Beyond this valve, a cavity terminated by another valve will be seen and a third cavity beyond this. These three cavities terminate in the opening into the sigmoid flexure. The rectal valves, which are usually three in number, can best be described by reference to the accompanying charts. The beauty of simplicity, and facility of manipulation in inspection, which this method of examination affords, can only be appreciated by its demonstration on the patient.

ing agents, ointments, sprays, etc., etc., as the manipulations are under the absolute guidance of the eye.

Conditions will be found by the general practitioner upon examination of the rectum and anus, which he does not feel qualified to treat, and which must necessarily be referred to those who have given the study of rectal diseases and their treatment considerable time, and who are equipped to properly treat such cases as require more extended and radical treat-

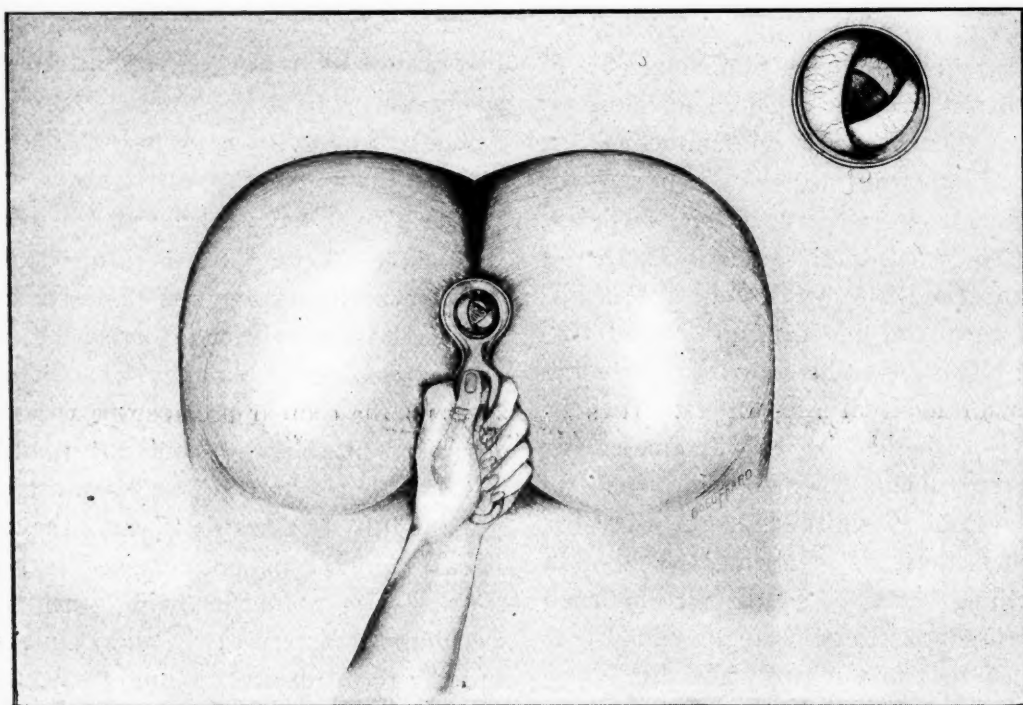


FIGURE 1—Showing proctoscopic view of the three rectal valves, as seen with the patient in the knee-chest position and the rectum inflated. The proctoscopic appearance of the valves is more clearly shown in the drawing in the upper right hand corner.

Ulceration, excoriation, polypi, tumors, inflamed areas, in fact, any pathological condition of the rectal surfaces are more clearly seen while the rectum is in a state of inflation. It might be truly stated that the era of satisfactory and complete rectal examination commenced with the assistance of inflation and proctoscopy. The knee chest position is most satisfactory for the application of cauteriz-

ment than can be given by the busy practitioner; but a great many proctological conditions can be successfully treated and relieved in the general routine of office practice.

I will not take up your time with an extensive discussion of therapeutic agents at our disposal. A great many textbooks are now at the disposal of everyone which go into detail in this regard. I

might say that in the treatment of excoriations, ulcerations, proctitis, and other inflammatory conditions of the rectum, nitrate of silver, ichthyol, balsam peru and iodine, have been my most satisfactory agents. A small polypus can be removed painlessly by means of a cold snare or snipped off with the scissors and the stump cauterized without analgesic agents. Cocain should never be injected into the rectum, as its absorption, even in weak solutions, has resulted disas-

ploration, is that disease which is now known as "Obstipation." Obstipation, to my mind, is best defined as difficult defecation due to mechanical obstruction to the fecal passage. This obstruction may be an integral part of the rectal wall or may be due to an impingement of some organ upon the rectal wall. Obstipation thus will be seen, in contradistinction to constipation, to be purely a mechanical condition. Constipation, however, is deficient rectal elimination caused usually

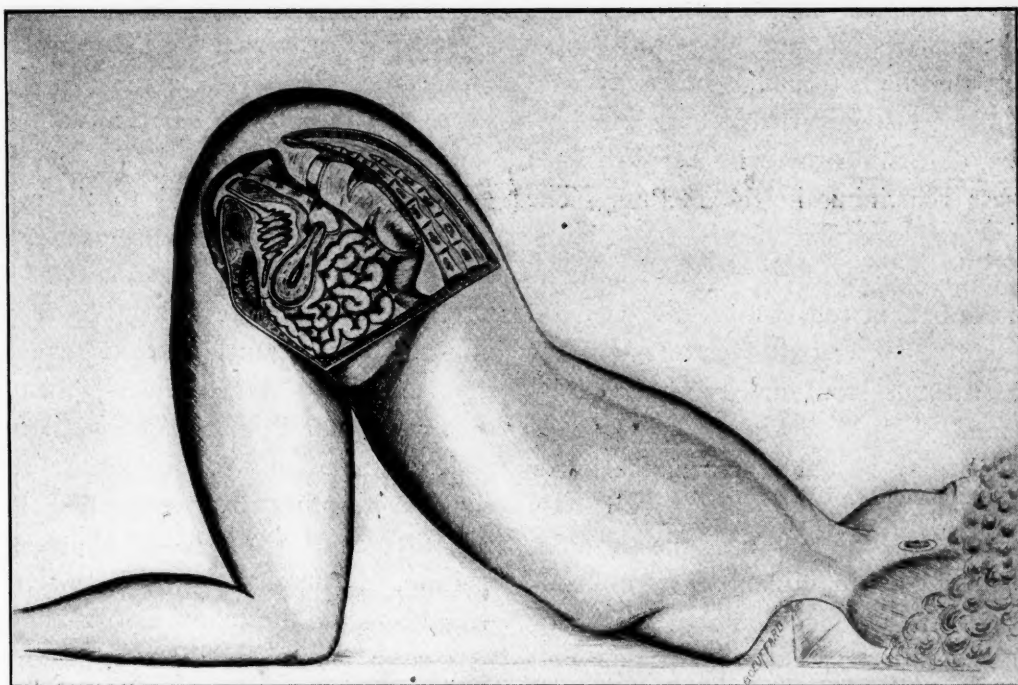


FIGURE 2—Section through pelvis of patient in knee-chest position, with rectum inflated, showing rectal valves in situ.

trously and even fatally. Eucain is far more satisfactory.

The rectum above the first two and a half or three inches, is not supplied with sensory nerves and I have repeatedly performed operations in this portion of the rectum without any analgesic assistance.

Probably the most important condition which has been brought to our notice by means of this newer method of rectal ex-

ploration, is that disease which is now known as "Obstipation." Obstipation, by its checking the proper excretion of waste products, will be found to be at the foundation of a great many diseases. Most cases of obstipation, it has been found by modern proctoscopy, are due to enlargement or fibrous thickening of one or more of the rectal valves, and this condition has been entirely relieved by valvotomy.

It might not be amiss to describe the symptoms of the average case of obstipation.

The patient will first complain of an inability to defecate properly or comfortably. He will tell you that he has a desire to go to stool, more or less regularly, but in spite of his straining efforts he can void nothing at all or perhaps a few hard, apparently broken off pieces, usually dark in color; or long ribbon shaped or flat stools, sometimes accompanied by mucus. He will inform you that this condition has existed for a considerable time; that cathartics do not have the proper effect; that he is troubled constantly with abdominal distension; that even after ordinary defecation there is a sensation of fullness remaining in the rectum. The rectum and anus may feel hot and burning, packed or stuffed. This feeling is with the patient constantly. He tells you that he goes from two days to a week or more without stool unless produced by catharsis.

There may be tenderness in the lower abdominal region and a large fecal mass may be felt in the region of the sigmoid. The ribbon-shaped, broken off stool, I consider almost pathognomonic of this condition. I have seen several patients who have come to me with a diagnosis of rectal stricture made by passing rectal bougies and the presence of ribbon-shaped stools, when proctoscopy showed them to be caused by obstipation due to hard, fibrous rectal valves, whose section gave complete relief. The straining, with the inability to void the stool is explained by the fact that the enlarged rectal valves overlapping, impinge one upon the other during the bearing down movement, absolutely obstructing the passage of solid feces. If the two thickened rectal valves

do not completely appose, a narrow, elliptical chink may be left, through which the flat ribbon shaped stool is moulded. The intermittency of the propulsive effort is responsible for the short broken-off stool. The other symptoms of intestinal auto-intoxication are usually present in these cases.

If there is not a great deposition of fibrous tissue in the valves, simple massage by means of the proper instruments may effect a cure. Usually, however, operative procedures are needed to give complete relief. Obstipation, due to impingement of a retroverted uterus or prolapsed and cystic ovary will be relieved by the proper attention to those organs.

It is not my purpose in this paper to go into detail in regard to therapeutic measures for the relief of conditions discovered upon rectal examination. If I have succeeded in bringing before your minds the importance of rectal examination, and have shown the simplicity of such examination; and, moreover, if upon such examinations, conditions are found which were otherwise unsuspected, I feel that these few words have fulfilled their mission. Therefore, in conclusion, I would ask for the sake of your patient's welfare and comfort, that in those cases with symptoms which have been mentioned, in which the diagnosis is somewhat obscure, that such examination, as I have imperfectly outlined, be made. The satisfaction of discovering the true cause of erstwhile baffling symptoms will amply repay you for your time and trouble.

DISCUSSION.

W. L. Dickinson, Saginaw: I can agree with every word the essayist has said in regard to these examinations, the necessity of making such examinations and his method of doing it. I wish to say one thing, and that

is, that I believe when you come to make your examinations, using a proctoscope, that long at first you will have difficulty in making out just what the diseased condition is. That has been my experience, and I have been making these examinations now for three or four years and I know that I can make them to-day better than I could two years ago. I can tell better what I have, but just as the doctor said, when you know what to look for you can take the proctoscope and you can diagnose the diseased condition just as well as you can some diseased condition on the back of your hand. You have the field in view so that you can go on and make the local applications, and you not only benefit but cure your patient.

I agree with the doctor thoroughly in the necessity of either incising or putting a clip on the rectal valves. You can use either Dr. Gants' or Pennington's clip for cutting through this hardened leathery rectal valve. You have probably all seen Pennington's clip, the doctor did not describe this so I will speak of it: We will say this web represents the valve, Dr. Pennington has a little clip that he puts on causing a necrosis of the tissue; there is no danger in using it and you will get good results by its use.

L. J. Hirschman, Detroit. I have only a word to add, not with any intention of continuing the discussion, the point was to help you if possible in showing what you are to look for; that was my purpose in bringing the chart before you. With the patient in the position which has been outlined in this chart, he is in the knee-chest position resting on one shoulder for comfort's sake, and it will be found on inserting the tubular speculum that the rectum will inflate very readily by atmospheric pressure. At the end of two or two and a half inches you will find what is apparently an occlusion of the rectum. By manipulating the proctoscope from one side to the other you will pass the first edge of the rectal valve and you will see another cavity that is ballooned out. The proctoscope which I have used is a simple one and with the patient in the knee-chest position I think that is the only way of examining satisfactorily, but you must have the rectum inflated. You can do that either by using air pressure, by means of a pump, or putting the patient in the knee-chest position, when in the case of a female the uterus falls forward and there is nothing pressing on the rectum. You can thus discover a great deal more about rectal

diseases and also the etiological causes of a great many other diseases that have been treated by drugs with indifferent results and you might even find a new source of cause for headaches.

DISORDERS FROM EYE-STRAIN.*

OVIDUS A. GRIFFIN,

Ann Arbor.

When a patient presents himself for consultation, be his affliction whatever it may, the physician, in determining the nature, location, and cause of the condition, must be ever mindful of the complexity of details which an apparently simple disorder may present. No class of disorders, however, more positively illustrate this fact than the neuropathic, reflex disturbances which result from different forms of eye-strain. Indeed, so varied and seductive are these manifestations that the most expert sometimes fail in a proper interpretation of the symptomology.

When we recall that, with imbalance of the extra-ocular muscles, especially exophoria and hyperphoria, and the presence of hyperopic refractive conditions, a constant muscular effort is made to remedy these defects in order to secure distinct vision, then it is that we can appreciate the vast amount of nervous energy that is often expended in the correction of heterophoric or ametropic conditions. The heart, which we are wont to regard as unceasing in its work, enjoys a longer period of rest than activity; but in instances of eye-strain, the correcting muscles are under a constant tension during all the hours of visual activity. So long as there obtains a sufficiency of reserve force to supply this continued expendi-

*Read before the Section on General Medicine at the annual meeting of the Michigan State Medical Society at Detroit, June 11, 1903, and approved for publication by the Committee on Publication of the Council.

ture of nervous energy, the symptoms are latent; but finally an exhaustion occurs, accompanied by manifestations of a varied symptomology. The normal eye often tires with a physiological amount of work; but when an effort is made to employ a defective visual apparatus, the task becomes not only unpleasant, but often distressing to a marked degree with more or less reflex disturbances, depending upon the nature and extent of the eye-strain, together with the systemic condition of the individual. Hence a muscular or refractive defect which produces few or no symptoms in one instance, may so affect the health of another person that a serious impairment of the vital functions occurs.

The usual symptoms characteristic of a heterophoric or ametropic condition may, for the sake of brevity, be grouped under two headings: phenomena of (a) muscular asthenopia, and (b) defective vision. With the former conditions, the patient complains of pains within the orbital cavities; headaches, confined to the frontal, temporal, or occipital regions; irritation of the palpebral conjunctiva, and a hyper-lachrymation, which may obtain constantly or upon doing near work only. In the former instance, the symptoms will be aggravated upon close application, e.g., reading or sewing. Blurring of vision, both for distance and near use of the eyes, may occur; but usually obtains, excepting in myopic conditions, only upon close application, especially in the young who have the necessary accommodative power to overcome the defect. Aside from myopia, therefore, normality of sight does not exclude the existence of refractive errors, especially the smaller and moderate degrees of hyperopic and astigmatic conditions. So far as symptoms are concerned, it is impossible to differentiate a muscular

imbalance from an ametropia, excepting when an extra-ocular muscle becomes sufficiently weakened that it can no longer cope with its opponent, when a diplopia occurs. If the condition is not properly treated at this stage, the latent imbalance of the eyes becomes a strabismus.

It is to the importance of reflex disturbances resulting from eye-strain that I would specially direct your attention. As previously indicated, these disorders are so varied, complex, and oftentimes pronounced that the symptoms of the etiological, ocular defect are quite unappreciated, in many instances, by both the patient and his attending physician. The constant, unceasing efforts at a correction of the mal-condition often exhausts the vitality of even the most robust, which manifests itself by an impairment of a weakened function or the system as a whole. As a result, we frequently meet with instances where a chronic headache, migraine, gastric disorder, neurasthenia, insomnia, epilepsy, chorea, or hysterical condition has resulted from an eye-strain, and continues so long as the causal defect is not properly remedied, despite the medicinal treatment which is so often erroneously employed. Indeed, as Ranney so aptly sums up the matter in his work upon Diseases of the Nervous System, "We shall in time more clearly recognize the fact that drugs do more harm in functional neuroses than good whenever any exciting cause of such a morbid condition persists and can be removed; just as we today rely, in case of a joint disease, more upon mechanical separation of the surfaces of the inflamed joint than upon anodynes to relieve the pain. We shall learn to search more carefully and intelligently for obscure causes of reflex disturbances, and to try the effect of their removal before we resort to

drugs. Medication must eventually, in my opinion, become the *dernier resort* of the physician, in this particular class of nervous diseases, rather than the haven of refuge."

To briefly illustrate the validity of my position in this matter, I will cite a few characteristic instances which have often been met in my practice:

Case 1. Mrs. M. S. W., aged 35, vocalist, presented the following history: Since childhood patient has been subject to a periodic headache which she regarded as hereditary, occurring every two or three weeks. Though apparently in good health, she complained of heart trouble, dyspepsia, marked constipation, and periods of extreme nervousness. With the development of the headache, her circulation would become sluggish and an uncontrollable nausea and vomiting would occur, which would so exhaust her strength that she had to keep her bed for several days. During this time, her suffering was so acute that she would become quite emaciated. Having employed several physicians, the diagnoses were of course varied. One regarded the condition as due to migraine; another thought that the weakened heart was productive of all the trouble; while a third emphasized the importance of the gastric disorder. None of them gave her any permanent relief. Finally her refractive symptoms became so evident that she consulted me regarding their nature and correction. Upon examination the following data was obtained: Visual acuity O.U. was 20/60; under homatropin the vision became 20/120; refraction revealed the following condition:

O. D. with $-1.00 + 2.25$ ax. $60 = 20/15$.

O. S. with $-0.75 + 2.25$ ax. $120 = 20/20$.

This correction was prescribed to be worn constantly. Although several years

have elapsed since this defect was remedied, she has enjoyed a complete cessation of all her former symptoms, excepting upon two occasions when her broken lenses were being replaced, during which time the symptoms partially returned.

Case 2. Mr. C. S. R., aged 32, insurance agent, has suffered during the past three or four years with eye-strain, headache more or less constant, general debility, and gastric disorders. Had treated with several physicians, but without permanent relief. Was referred to me for an examination of his eyes, when the following conditions were found: Visual acuity O. U. 20/15; under homatropin 20/40.

O. D. with $+1.00$ ax. $90 = 20/15$.

O. S. with $+1.25$ ax. $75 = 20/15$.

A test of the muscular condition showed 6° R. Hyperphoria, internal and external recti normal and in balance. Advised use of correcting lenses for the ametropia for several months with a possible view of remedying the muscular imbalance. Symptoms somewhat improved under this treatment, but muscular condition remained practically unchanged. Advised graduated tenotomy of the right superior rectus. Operation was performed after which 1° of insufficiency still remained. Glasses ordered to be worn constantly. The symptoms practically all disappeared within the course of a few months, without any medicinal aid.

While I view this subject from the standpoint of an ophthalmologist, I would have it distinctly understood that I am not one of those who attribute every ailment of the human flesh to the presence of an ocular defect; but simply desire to emphasize the possibilities of muscular defects and refractive errors in the production of various reflex disorders, as indicated above.

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Editorial

THE FIELD OF THE STATE MEDICAL JOURNAL.

In the September issue of the Illinois Medical Journal, the official organ of the Illinois State Medical Society, the field of the State Journal is carefully considered. The Editor corresponded with many of the prominent Medical Editors in the United States to ascertain their views as to the usefulness of the State Journal. The consensus of opinion was "that there is a distinct field for Medical Society Journalism." The Editor voices our opinion when he states: "As we see it at present such a journal should publish the transactions of the State Society and of the affiliated local societies. Much earnest and profitable work is being done in these small societies. The Medical Society is a great educational factor. More than half the education of a physician is derived from association with his colleagues. The journal should keep the profession of the State fully informed as to the doings of the Boards of Health and Board of Examiners, State institutions, and all other medical or semi-medical institutions in its State. Local health conditions throughout the State are a source of constant interest, and each official reporter and health officer should furnish the Journal full and reliable reports in health matters."

The Secretary of each County Society should be the official reporter of the County and should keep the profession thoroughly informed through the Journal of all matters in the State of interest to the profession. These Secretaries are a part of the reportorial staff of the Journal and should do all in their power to assist the Editor in this work.

THE PRESS COMMITTEE AND THE NEWSPAPER.

In his address before the Wayne County Medical Society at Detroit, September 3rd, the retiring President, Dr. F. B. Tibbals, advocated the appointment of a Press Committee by each County Society, "whose duty it shall be to prepare articles for the local press on timely medical topics regarding which the public is uninformed, and edit such medical copy as shall be submitted to them by the Press; such articles to be signed simply 'the Press Committee of the County Society.' Being accurate and trustworthy and bearing the name of no individual, they would meet no ethical objection."

It is contended that "the average newspaper man is incompetent to determine from the standpoint of accuracy what *news* is in medical matters, and hence gladly publishes any kind of sensational tommy-rot, knowing it will be eagerly read and accepted as fact by the credulous lay reader; however absurd it may appear to the well posted medical man."

Unfortunately the average newspaper Editor has as small an opinion of the medical man's ability to write what he considers *news* in a manner readable by the average layman and, while admitting that the matter may be scientific, accurate and

of value, knows that it would not be read. He believes the profession of medicine and the art of newspaper reporting are distinct; and, as in most all cases, the newspaper Editor has the advantage of being the final judge, we believe that, while the step is in the right direction, it will not meet with the approval of the newspaper until some man, versed in reportorial work, gives special attention to reporting medical matters. The reporter will have to be made more familiar with medical subjects, but he must be foremost of all a reporter.

A COURSE AT THE DETROIT CLINICAL LABORATORY.

Desiring to place at the disposal of every physician of the State an opportunity to become familiar with the value and the technique of the Modern Laboratory Methods as applied to Diagnosis, the staff of the Detroit Clinical Laboratory is giving an interesting and practical series of lectures in radiotherapy, hematology, pathology and bacteriology. The lectures are held in the laboratory building three nights of the week, so arranged as not to interfere with the meetings of the Wayne County Medical Society. A nominal fee of \$5.00 is charged.

The staff is to be congratulated upon inaugurating such an excellent system and upon the care with which the course is prepared. It is hoped and believed that the course will be well enough supported by the profession as to encourage the staff to continue the work from year to year upon even a larger scale.

That the officers of the State Society may be able to carry out the work entrusted to them, it is absolutely necessary that

each member shall promptly pay his dues to the Secretary of his County Society. These dues are payable in advance. We conduct the business of editing the Journal upon a cash basis and must have the funds necessary for the proper conduct of the same.

County Society News.

CALHOUN COUNTY.

Calhoun County Medical Society (Branch No. 1, M. S. M. S.) held its third quarterly meeting in the Leisure Hour Club rooms, at Albion, Sept. 1st, 1903, with thirty members in attendance.

A. P. Biddle, of Detroit, Editor of the JOURNAL, and A. E. Bulson, of Jackson, ex-President of the M. S. M. S., and now Councilor for the Second District, were present and did much to enhance the interest of the occasion.

After admitting six new members, the society listened to a very able paper on Abscess by A. J. Abbott, of Albion.

A paper on "A Study of Some Remote Effects of Venereal Diseases, with Suggestions" was read by W. H. Haughey, of Battle Creek.

F. J. Otis, Bacteriologist of the Battle Creek Sanitarium, favored the society with his New Orleans Prize Paper on "Blastomycetes," illustrating it with a large number of stereopticon views, showing the germ in all its different stages of growth, as well as the pathological anatomy of the parts affected by it. No abstract of this paper could do it justice, and as we understand that it will soon appear in extenso in the JOURNAL of the A. M. A., we refrain from further report.

ABSCCESS.

A. J. Abbott, Albion: In his paper, gave the pathogenesis of abscesses, naming the various germs which cause them. Speaking of the treatment, he urged aseptic and antiseptic treatment; condemned the use of poultices and the curette, and cautioned against hard pressure and squeezing for fear of breaking down nature's barriers and spreading the infection.

A STUDY OF SOME REMOTE EFFECTS OF VENEREAL DISEASES, WITH SUGGESTIONS.

W. H. HAUGHEY, BATTLE CREEK.

Some weeks ago the chairman of the committee, appointed by the State Society to secure data regarding the prevalence of venereal diseases in

Michigan, requested me to secure a paper for this meeting on some venereal subject and report the discussion to that committee; a similar request having been made to the secretaries of all county societies in the state. After asking several gentlemen who, I thought, could write such a paper better than I could, I found it necessary either to write it myself or not get it; hence this paper.

For five years I have not treated venereal diseases in my practice and have only met the after effects of them in a surgical capacity. I shall not attempt, therefore, to treat any form of venereal diseases at this time, but, as the object of the committee is to get data as to prevention and practical suggestions as to the best means to control, modify or lessen the evils arising therefrom, will discuss somewhat these phases of the problem.

That at least one-third of all medical practice is treating diseases peculiar to women is a common opinion among medical men; that a large percentage of these diseases are of venereal origin is well known, and that much of the remaining percentage is due to misuse of the sexual and reproductive functions is a growing belief.

In a well written article read before the General Medicine Section of the State Society, at its recent meeting in Detroit, and published in the August number of the JOURNAL, Dr. J. A. Porter, of Brooklyn, calls attention to this latter phase and pleads eloquently for such widespread and diffused education along the lines pointed out in his article, as will lead to a change of heart and awake the laity to the troubles they invite, added expense they incur, ills of health they bring on, with the inevitable shortening of life, decrease in the birth rate, and a retardation of the forward progress of our race. He even shows how the ultimate race extinction can by these means be brought about. He argues, and this argument is well worth our attention, that the best brains and those most capable of solving the problems of state and advancement in all lines are not increasing, nor reproducing their kind in proportion to the needs nor in proportion to the increase and reproduction of those less trained and, therefore, less capable to grasp and solve such problems. This he attributes to parents, who have received through heritage and education strong mentalities and brains capable of advancing the problems of life and improving the race, positively refusing to reproduce in anything like the proportion their numbers bear to the population.

Is this proposition true? Does mentality, education and culture through several generations tend to lessen our powers of reproduction and thus exterminate the thinkers so carefully bred through

those successive generations? Is it necessary to begin again after each cycle of generations to educate and breed up from plebeian stock another corps of thinkers? And must they in turn die out to give room for still another? Perish the thought.

That this condition prevails widely at the present time I will not deny. But that it is a necessary concomitant and natural penalty to more perfectly developed brains, stronger mentalities and higher education I deny, and deny emphatically.

This brings us to the study of the causes of sterility, and with it to the proposition rapidly gaining converts "that sterility is mainly due to venereal and moral causes; and to heritage in inverse ratio as to the extent these two causes are transmitted." We, as physicians, try to make ourselves believe, that, after a man has contracted syphilis, he may be so nearly cured as to beget healthy children, but down in our hearts we firmly believe that while this result may be possible, it is not probable; that only in exceptional cases is it accomplished. That in the large number of cases the offspring shows indications of inherited syphilis. This being true, it follows that a large proportion, perhaps two-thirds of all men, who beget children after being, as they supposed, cured of syphilis, beget syphilitic children who, if not sterile, in turn may and often do pass it on to subsequent generations. How far this might go I cannot say, but if horse breeders are obliged to breed to thoroughbred stock through six generations before exterminating the last vestige of common stock and a perfect thoroughbred animal attained, and then only where the closest attention to details has been observed and absolutely no opportunity for a fresh injection of common stock anywhere in the long line has been allowed, who can say when this taint can be bred out of the human subject where no attention to the matter is given, and *indeed* a strong probability of infusing a fresh strain of syphilitic blood at any one of the generations is present. Hence, were it possible to eliminate it in six generations, how could we know that a fresh strain had not been introduced somewhere during the six. We can, therefore, expect no, or almost no, help in exterminating syphilis from heredity.

How about gonorrhoea? So far as I know gonorrhoea is not inherited. If a man contracts gonorrhoea he may, it is true, be so far cured as to enable him to beget children. But let us note the effect so often produced on the mother. If young and innocent, and this is the first pregnancy, she offers a more fruitful field for the pro-

pagation of the gonorrhoeal poisoning than one who from a previous infection might possibly be immune. Hence, with the conception of the child, she also, from the infected semen, conceives gonorrhoea, in a mild form it is true, but sufficiently virulent to pursue its course concomitant with the pregnancy, which terminating either in abortion, premature deliverance or at term, leaves her still an invalid from the gonorrhoeal infection. Now owing to the hyperaemia and congestion of the parts during the pregnancy, this infection has spread rapidly till all the pelvic organs may be involved and we soon find inflamed ovaries, pus tubes, endometritis, or all three. These are followed, in the favorable cases, by inflammatory bands, prolapsed ovaries, adhesions and sterility; in the unfavorable ones, by peritonitis and death, or ovariectomy, salpingotomy, or hysterectomy; and even death sometimes follows in this train, thus effectually preventing the transmission of any venereal disease by that mother. Therefore, while syphilis propagates itself down through the generations, gonorrhoea cuts the generations short and tends to exterminate the species. One man with gonorrhoea may infect several women, after which he may become cured and beget healthy children from still another woman whom he does not infect, but at what a sacrifice! When society learns that "female weakness" in a young girl is so often the result of gonorrhoea, then "female weakness" will be less popular! When society learns that peritonitis in a wife is so often the result of an abortion, then abortions should be less popular. When society learns that most of the nervous ills, uterine disturbances, curettements, etc., in young wives who were healthy before marriage are due to efforts to prevent conception or to disrupt it after taking place, then should such efforts be less popular. When those who must work for a living learn that it is cheaper to raise a large family than it is to support a sickly wife, and that a sickly wife, or a dead one, is the natural penalty for interfering with the course of nature in this respect, then large families will be more common among working people. When those who *think* for a living and for the advancement of the human race learn that it takes several generations of educated, healthy people to produce thinkers, and that venereal troubles sadly interfere with the process; when they learn to appreciate their true worth to the world; when they learn that large families bring health, happiness and a means of propagating their intellects, while no family robs the world of that intellect; when they learn that the opinion of all those whose opinion is worth

having is not condemnatory to large families; when they learn their power to quiet the scoff of the frivolous and unthinking; then will there be more large families among the thinking class; then will the world advance as never before; then will our race approach more nearly to perfection. When will this time arrive?

Religion has done much and will do more to help. Education is now coming to the aid of religion and the progress should be more rapid. I wish I could say it is more rapid, as that would speak well for education. The thing known as society, however, has always retarded this progress.

In my oration at Port Huron before the Section on Obstetrics and Gynecology, I said "society must purify itself, because the perpetuation of society depends on the purity of its morals." Is society doing this? Let us see. Every newspaper, every magazine, every periodical contains articles on large families. Every club, every social gathering, every family circle discusses this subject, and why this great interest? Because, awakened to the emergency of the case, and from the wholeness of his soul and realizing the great force and weight the position he occupies would give his words, our Chief Magistrate, President Roosevelt, some months ago spoke in no uncertain terms his desire for large families and his contempt for those who could but would not raise them. Coming from such a source will society obey? It will. Society is not wholly bad. Society at heart is good, but weak and fears to be scorned or laughed at. Frown on the scoffer. Correct mistaken ideas as to family expense. Teach the true cause of all troubles arising from venereal or moral origin. Account motherhood its due respect and true place in society. Treat barrenness as a fault or at least a preventable disease; teach man that he has a soul to preserve, and the problem is solved.

Led by the strong personality of President Roosevelt and his exalted position, society is fast doing this. Now is the golden opportunity for medical men to teach, and true to their principles they are *now* as they always have been *in the past*—teaching, with this difference, now we are being heard; before President Roosevelt spoke we were being listened to with polite indifference.

DISCUSSION.

A. W. Alvord, Battle Creek: This is an important subject and needs to be agitated. A much larger proportion of the ills with which we come in contact are results, either direct or indirect, of venereal diseases than is usually recognized. This fact explains to some

degree why so many who have attained a high place in life do not propagate their kind. Very few city-bred lads make a large success of life. It is the country-bred boy, fresh from the farm, who outstrips his city-bred competitor in either business or professional lines. The banker invariably comes from the working classes. Venereal diseases are seldom found on the farm or in the families of the frugal laborers. I heartily endorse this paper.

C. E. Stewart, Sanitarium, Battle Creek: I was very much interested in listening to this excellent paper by Dr. Haughey. Too much stress can not be placed upon the agitation of this important subject. Physicians alone are capable of appreciating the alarming extent to which venereal diseases exist, consequently the responsibility of educating the laity with reference to the evil effects which so frequently arise from this disease lies with them.

In order to be effective this education must be done in the homes, as the physician comes in contact with the individual members of the family. In making a study of the history of a large number of male patients who are assigned to me, I have been very much surprised to find that so large a percentage have, at some time, suffered from some form of venereal disease. At least three-fourths of these patients give a history of having at some time suffered from one or more forms of this disease. Such a condition certainly demands the careful attention of those who are in a measure responsible for the public health.

Dr. Haughey has struck the key-note on this subject, and I trust every member of this society will make a vigorous effort to help remedy this too prevalent condition.

F. J. Otis, Sanitarium, Battle Creek: This subject was agitated at New Orleans. I am gratified that it should be discussed extensively. We find at the Sanitarium that venereal diseases are very prevalent among the men. It appears in the history of almost all the chronic cases, and we are horrified to find that their wives almost always suffer far more severely. A large number of the women have also had these diseases, contracted in a large measure from their husbands. The only method of remedy is to educate the people to better ways, and I should be glad to work with any one to that end.

A. E. Bulson, Jackson: In my work as a specialist I find many of the ravages of specific disease. The late Dr. Henry D. Noyes, of New York City, claimed that in iritis and affections involving the fundus, at least

sixty per cent. were due to this cause alone.

Unfortunately, in cases of this kind, where specific disease is inherited, we cannot, as a rule, give this information to the parents, as in many cases, the imparting of such information has led to a dissolution of the marriage tie.

This terrible scourge is not confined to any one class of people, but is prevalent in every walk of life, and is rapidly spreading, like a mighty tidal wave, all over the land, and it is the earnest duty of every physician to seek to find some way to exterminate the evil, if possible. To him belongs the duty of enlightening the public, particularly the young men, upon the terrible nature and consequences of the disease.

The subject should be brought before every medical society in the state. Lectures might be given upon these questions before the various societies in an effort to create a sentiment, which would, at least, place a check upon the ravages of this scourge which is one of the worst upon the face of the earth to-day.

The profession is making constant investigation and laboring to find some means to arrest the spread of tuberculosis, and, I ask you, why not be equally vigilant in trying to find some means of stopping the spread of venereal disease?

The action of the Michigan State Medical Society in appointing a committee to tabulate reports of cases throughout the state is to be commended and with our present plan of organization we can accomplish much toward mitigating the disease, if we only work together to this end.

I am glad, indeed, that Dr. Haughey has given us this paper, and I trust that it is the beginning of a mighty crusade against this terrible plague.

H. A. Powers, Battle Creek: I am much interested in this paper. I am always interested when Dr. Haughey presents a paper; he seems to put his best efforts into his subject. He says the remedy is to come through education; I agree with him, but how are we to reach the ones that need educating? The church can aid, but it can do very little. The greatest educator of the day is the public press, and that is the way to educate the people to better ways. Publish this paper in the daily papers of this county and it will do more good than to publish it in all the medical journals of the state, because not yet come when this subject should be given it will reach the ones that need educating. Print boldly the results, paint the picture as bad as it is. We may discuss this subject in our medical societies until doomsday and it will do no good, because the people that must be educated will know nothing of it. It is not true that only a certain low class of people are affected by these diseases;

they reach every class, from the lowest to the highest in society, many of whom are innocent sufferers. My sympathy is for the innocent and not for the guilty. It may be that the time has to the public press, but it must and will come, if we are to accomplish the desired results.

R. M. Gubbins, Ceresco: This is a condition that more often exists amongst such people as those who are commonly employed by railroad contractors, canal builders, or builders of public utilities. These are transient, unskilled laborers. The uneducated and morally depraved are frequently afflicted by these disorders. The publication of such a technical paper as Dr. Haughey's would, in my opinion, fail to reach the right class of people. Farmers and the better class of working people, also the great majority of church members and other Christian people are fortunately free from this affliction. It is true that many cases are discovered amongst the rich, cultivated society such as frequent Newport and various other places. I believe that the education of the people is the only way to obliterate this disease. The publication of articles on this subject, written expressly for the instruction of the people, would meet with my approval. By publishing this valuable paper of Dr. Haughey's in our Michigan Journal, if the high merit we attribute to it obtains, attention will be attracted to it, and the editors of this country, who stand in advance as educators, will publish it far and wide and more good will be accomplished than by publishing it in the county papers.

J. C. Brown, Battle Creek: Any question, however solemn or sacred, seems to have its humorous side, so I am, if not surprised, somewhat amused that Dr. Gubbins should protest against race suicide. The point in the matter you will plainly see when I tell you—He is only an old bachelor, that's all.

J. H. Read, Battle Creek: I must compliment Dr. Haughey upon his paper. It is just such a paper as is needed at this time, in view of the fact that our state and our country generally have been aroused to the importance of checking this growing evil. My practice is such that I receive a large amount of this work. I have now under treatment twenty-two cases of venereal disease. Our city, with its two sanitariums, has one hundred and twenty-five physicians, hence if the other physicians have anywhere near a similar amount, just think what our country and society is coming to. There is a tremendous and ever increasing amount of venereal disease. It penetrates all classes and stages of society, rich

and poor, farmer and mechanic, black and white, it is no respecter of persons. In answer to Dr. Gubbins, who claims the farmer is immune, will say that such is not my experience, and recall a recent case. A farmer's hired man came into my office suffering from syphilis. I treated him and he left for his home. A few days later he returned with a woman who had become inoculated. History showed her to be the farmer's wife, who had accepted the attentions of the hired man on account of a quarrel with her husband. Later the husband had become inoculated and a little daughter also from using a towel used by the mother.

G. B. Gesner, Marshall: Although I endorse every word of the excellent and powerful paper of Dr. Haughey, and fully realize the vital importance of its contents to the people, yet I do not believe that the press is the right way to reach them on this subject. Many to whom the article would not apply would see it, but the ones for whom it is meant, if reading it at all, would point to their neighbors. It is true the immediate and remote effects of venereal diseases are appalling, but to restrict this evil we must either utterly change the animal instincts of man, or educate him. Of course we cannot hope to ever influence the animal instinct, but we can do much by educating men against the evils of prostitution. I think this can best be accomplished by physicians instructing their patients individually and personally, by picturing to them the inevitable and horrible results in their true light, gloomy and sad though they be. Do not take a case when it comes and tell the victim his condition is not serious, no worse than a cold as these traveling quacks do. Impress on the patient the gravity of the situation, especially the remote effects of his condition.

W. H. Haughey, Battle Creek: I am deeply grateful for the extended discussions my paper has received. I appreciate the fact, however, that it is the subject matter, rather than any intrinsic value of the paper itself that arouses this interest, and this is right. I thank the members all for the courteous treatment of me and my paper, and can only feel pleased at the expressed desire to have it printed. Permit me to say, however, that this paper was not prepared for the lay press, that there are many things in it which I should object to sending there. Farther, it having been read here, belongs to this society and to our JOURNAL, the *Journal of the Michigan State Medical Society*, to which I will send it. If it meets with favor from the committee on publication, and is printed, I will secure

sufficient reprints that you may all have a generous supply. One thought only do I wish to add to the discussion. In general, newly married people, or at least those experiencing their first pregnancy, are most apt to listen to our advice and follow it. This should be such that although it may result in the loss of a good fee to the doctor, it will leave him with a clean conscience and a high place in the esteem of the parties advised.

W. H. HAUGHEY, Secretary.

FIFTH DISTRICT MEDICAL SOCIETIES.

OTTAWA, IONIA AND KENT COUNTIES.

To be held at Grand Rapids, October 8, 1903.

PROGRAM.

Call to Order.....2:00 p. m.
Adjournment5:30 p. m.
Reconvene7:00 p. m.
Banquet8:30 p. m.
ToastmasterJ. B. Griswold.

Papers and Discussions.

Ovarian Fibroids, Specimen Case.....
.....S. C. Graves, Grand Rapids.
Discussion opened....R. R. Smith, Grand Rapids.
Resection of Knee Joint, Report of Case
.....T. G. Huizinga, Zeeland.
Discussion opened..W. G. Young, Grand Rapids.
Atropin in General Medicine..S. C. Cope, Ionia.
Discussion opened.....
.....H. J. Chadwick, Grand Rapids.
Hemorrhage after Cholê-cystotomy.....
.....W. Fuller, Grand Rapids.
Discussion opened..S. C. Graves, Grand Rapids.
Pneumonia, Report of Cases.....
.....J. E. Ferguson, Belding.
Discussion opened..Earl Bigham, Grand Rapids.
Plastic Operation in Gynecology.....
.....J. J. Mersen, Holland
Discussion....F. A. Rutherford, Grand Rapids.
Diagnosis and Treatment of Acute Gastro-Intestinal Diseases of Children..
.....Collins H. Johnston, Grand Rapids.
Discussion.....B. B. Godfrey, Holland.
Last Two Doctors.....
.....W. S. Walkley, Grand Haven.
Discussion.....O. L. Dales, Grand Rapids.
Vesical Calculi.....John Brady, Grand Rapids.
Discussion.....Henry Kremers, Holland.
Chronic CystitisF. W. Braley, Saranac.
Discussion.....J. B. Hilliker, Grand Rapids.

Appendicitis, Simulating Typhoid Fever,

Operation..Ralph H. Spencer, Grand Rapids.
Discussion.....C. S. Cope, Ionia.

An Expedient in Carbolic Acid Poison-

ing.....E. F. Beckwith, Ionia.
Discussion....L. H. Chamberlin, Grand Rapids.

Iritis Dependent upon Rheumatism and Syphilis, Treatment.....

.....L. A. Roller, Grand Rapids.
Discussion.....J. Harvey Innis, Grand Rapids.

Papers limited to 15 minutes. Discussion limited to 5 minutes.

D. EMMETT WELSH, Councilor.

H. W. CATLIN, Secretary.

HOUGHTON COUNTY.

The annual meeting of the Houghton County Medical Society was held in Calumet, September 7th, with a very good attendance. The election of officers for the ensuing year was held. The list of new officers is as follows:

President—J. E. Scallon, Hancock.

Vice-President—A. B. Simonson, Calumet.

Secretary—James Hosking, Kearsarge Mine.
Treasurer—A. G. MacLeod, Calumet.

The address of the evening was given by E. C. Dudley, of Chicago, on "Some Means for Lowering the Mortality in Abdominal Surgery."

As this was an informal talk without being written, I am not able to send a copy of it. I have not been able to send a good synopsis of discussions in the past as I have not had full enough notes. We expect to have a stenographer present at the meetings in the future and the Secretary can probably furnish much better reports than I have done. Some of our meetings have been such good ones that I am very sorry I have not complete records of them.

W. K. WEST, Secretary.

HURON COUNTY.

The Huron County Medical Society held its regular meeting at Harbor Beach, July 14, in the council rooms—one of the best attendances of the society. Papers by several members presented and discussed. Dr. Attridge, of Detroit, read a paper on surgery; Dr. W. B. Outten, of St. Louis, Mo., gave his views on some things of interest to the society. The doctor is very much interested, in fact is pushing matters looking towards having one of the most interesting medical congresses

to be held next year at St. Louis, "The Louisiana Exposition." Dr. Attridge's paper was a clean cut presentation of the method and procedure of the surgery of the special subject chosen.

The program for the afternoon was looking through some of our manufactories, surry ride to the summer resort. Mrs. George Jenks gave permission to the party to see the inside of her summer home. Mrs. Clark passed them through the club house. A boat ride was then made to the lighthouse and breakwater. Hotel reached at six o'clock. Meeting held in council room, called to order at 7.30. Papers read by members of the society, Drs. Herrington and Conroy of Bad Axe.

Drs. Otto Frenzell of Pigeon; F. E. Lutton of Kilmanagh; J. H. Switzer of Port Hope; D. Conroy, W. J. Herrington, and M. R. Lyman of Bad Axe; A. J. Charlton of Greenleaf, and D. J. McColl and Fred. H. Shuts of Elkton, attended the meeting.

D. J. McCOLL, Secretary.

INGHAM COUNTY.

The Ingham County Medical Society met at Council Rooms, City Hall, Lansing, Thursday, September 10, 1903, 2 p. m.

PROGRAM.

Business meeting.

Paper—The Surgical Consideration of Intestinal Perforation in Typhoid fever. By R. J. Shank, Lansing.

Discussion led by W. W. Root, Mason.

Paper—Infantile Ophthalmia. By A. D. Hagadorn, Lansing.

Discussion led by H. A. Haze, Lansing.

L. ANNA BALLARD, Secretary.

LIVINGSTON COUNTY.

The Livingston County Medical Society held its annual meeting at Howell, Sept. 15. Following officers were elected:

President—W. J. McHench, Brighton.

Vice-President—A. S. Austin, Fowlerville.

Secretary-Treasurer—R. H. Baird, Howell.

Directors—W. C. Huntington, Howell; J. H. Egbert, Howell; A. S. Austin, Fowlerville; W. H. Erwin, Oak Grove; H. F. Sigler, Pinckney.

C. L. Sigler read a paper, "Puerperal Infections."

Adjourned to meet in Howell second Tuesday in December.

R. H. BAIRD, Sec'y.

MANISTEE COUNTY.

STATIC ELECTRICITY IN MEDICINE.*

J. E. PELTIER, MANISTEE.

Static electricity was given to medicine about the year 1750. It was brought to America by Benjamin Franklin about 1752. The modern Holtz induction machine, the representative source of static electricity to-day, is now made in several sizes, from six plates to thirty-six plates. No detailed description of the improved static machine is required, for its general appearance is familiar to all physicians.

A physician unfamiliar with static electricity but familiar with statements by well known authors declaring static electricity a failure would be amazed to witness the performance of a splendidly handled and powerful Holtz machine. The strictures perpetuated in some medical writings would seem irreconcilable with the evidence of his eyes; but, however incredible he may regard them in the presence of a superbly powerful apparatus, they become perfectly credible if we apply them to an inferior machine acting under unfavorable conditions. The static machine must, therefore, be considered on the individual merits of itself and operators, as distinguished from static electricity in the abstract. No cripple is more helpless than such a machine without its electrical charge. It is absolutely useless. This is why static electricity was abandoned so many years ago. But all modern Holtz machines are self charging and therefore give us but little trouble, and then only on damp, muggy days in summer.

Almost every disease treated by many physicians by this agent in 1896 was successfully treated by it by a few men a century ago. Methods, electrodes, and principles involved are practically the same, with the exception of Leyden jar currents and the substitution of induction for friction by Holtz in 1865. The great development of the decade 1885-95 placed static electro-therapeutics upon a firm and advanced basis. Its efficiency in producing X-rays puts a fitting climax upon the achievements of the improved machine.

The subject assigned to me is so broad that I can but barely touch upon the therapeutical value of static electricity, so I will simply mention some of the more prominent diseases I have cured with this agent.

First, I call your attention to incipient colds. The strong tendency of static electrification to restore to normal the functional processes is most

*Read before the Manistee County Medical Society April 28, 1903.

strikingly displayed within the nervous, circulatory, and muscular systems; and I have often observed its efficient action in the first stage of a cold. The following case will illustrate:

Miss J. B. W.—came into my office one morning and complained of having caught cold. The night before she had been awake nearly all night—complete anorexia, nausea, headache, creeping chills and extremities cold, head hot, and general prostration. Placed her upon the insulated platform positively insulated, with negative pole grounded. After five minutes of this positive electrification her symptoms ceased. Headache gone, hands and feet warm, nausea absent. I closed the treatment in fifteen minutes. She then declared that she felt as well as ever and has since remained so.

There are two lessons enforced by this kind of static electricity in acute disturbances; one is, that when no invasion of febrile disease is taking place, positive electrification will direct the functions into a normal state.

Second, that the usual short application is ineffective, and that two or more long sittings repeated the same day will almost always abort a condition that would otherwise prove tedious and annoying.

I have also treated lumbago, torticollis, pleurodynia, and all forms of muscular rheumatism and muscular pain,—acute, subacute, and chronic. I seat the patient, fully clothed, upon the insulating platform of the machine, and connect it with the negative pole, ground the positive pole, together with the brass point electrode, to a gas fixture. I then start the machine into moderate action and apply a concentrated positive breeze to the painful part. I gradually sweep the point nearer the surface so that a succession of spray showers will be thrown upon the muscle affected. In a moment I increase the intensity of the application so that fine needle sparks mingle with the spray. I then suggest to the patient to attempt such movements and positions as are most difficult and which aggravate the pain. The effect of this positive spray will immediately be warming, sedative, relaxing, and anodyne to the stiffened and sore muscles. In recent and simple cases such a counter-irritant spray will produce entire relief in from five to ten minutes. If the case is of a little longer standing slow down the machine and apply a sufficient number of positive sparks from the grounded brass ball electrode to complete the relief.

I generally begin with a very fine spark and increase the vigor gradually until results are secured. If the case is still more chronic and deep seated,

and has resisted a good deal of other treatment, I proceed at once to vigorous counter-irritant treatment by applying single, thick, clean sparks directly to the site of pain and over the adjacent muscles. I apply a few at a time and note the relief they afford. I continue to posture the patient so that every possible aggravation of the pain is caused and in each position I apply sparks as above until relieved, and I persist until the patient steps from the platform free from pain and walks and moves about with perfect comfort. The length of time required in any case will rarely exceed ten minutes. If static electricity is properly applied to muscular rheumatism and fails to produce satisfactory results, the patient has some other affection and not muscular rheumatism. There is nothing more certain in therapeutics than the absolute relief to all forms of muscular rheumatism afforded by electrical currents, and the simplest and most effective current to apply is usually the static. I do not wish to further tire you with the application of this form of electricity, yet, before I pass on to the most important part of this wonderful machine, namely, the X-ray, I wish to state that it is the greatest agent we possess to-day in our whole armamentarium of therapeutics.

About the beginning of the year 1896, Prof. Wm. Conrad Roentgen, of Wurtzburg, Bavaria, gave to the world his discovery of the X-ray. During the first months of that year the opinion prevailed that thus far the only apparatus known which would produce X-rays readily and profusely was the induction coil. Such a transformer gives exceedingly great electro-motive force capable of producing discharges over long air gaps. When the discharge from such a coil is passed through properly exhausted and constructed tubes, we have a very vigorous generation of X-rays. During this same experimental period the static machine was known to give exceedingly great electro-motive force, capable of producing discharges over long air gaps, surpassing in these respects the capabilities of the ordinary coil. It was tried, and for the most part rejected in early X-ray work for the wholly sufficient reasons which demonstrated that, first, the discharge from static machines was not then passed through tubes properly exhausted and constructed for the static current; second, that scarcely any of the experimenters were skilled in the manipulation of such an apparatus, and the few who were expert with static electricity could not then procure Crook's tubes adapted to its great electro-motive force. Five months later Dr. S. H. Monell was practically demonstrating to physicians in his office and clinic

that when the discharge from the Holtz machine was passed through Crook's tubes, which proved to be properly constructed and exhausted to suit this form of current of extraordinary potential, there resulted a generation of X-rays from twenty to thirty per cent. more vigorous and profuse than the production of the best coils then known to be employed; and from three to five times more useful to the diagnostician than the X-rays of average-priced coils, and far more valuable than the feeble glimmer of the coils and small tubes in most common use. The practical value of the Roentgen ray in routine work consists in diagnosis, skiagraphy, and therapeutics. You are all familiar with the diagnostic uses of the rays for surgical work; for locating foreign bodies, for fractures and luxations, and growths upon bones such as osteomata. These can readily be seen by the fluoroscope, and though wonderful are but a fractional part of the wondrous works of the X-rays. To illustrate further, I will mention a few of the more advanced successful diagnostic demonstrations, namely: Diseases of the oesophagus, tuberculosis of the lungs, and in fact nearly all diseases involving the pleural, abdominal, and pelvic viscera. It is a common mistake to suppose that the X-ray is still in its infancy or an experimental stage; for it has been tried in the clinical balance, tested in laboratories, proved by experience, and to-day stands perfected.

It is new to-day only in the sense that the multiplication table is new to every school boy who learns about it for the first time.

The value of the Roentgen ray in determining the nature of certain affections of the oesophagus has been shown by Schworer, who, by this means, was enabled to recognize and outline the seat and position of a dilatation of the oesophagus by means of a tube containing a copper wire which was passed through the oesophagus into the stomach. Through this a second tube was introduced. Into the oesophagus was then poured 30 gm. of bismuth suspended in 300 cubic centimeters of water. Through the fluoroscope a shadow was seen corresponding to the dilated oesophagus in which the presence of the copper wire was plainly recognized, but the outline of the wire was more sharply defined below the diaphragm, where it lay in the stomach.

In regard to the study of the diseases of the lungs and pleura, it may be maintained that whoever does not master the principles of auscultation and percussion, is not fit to comprehend the fluoroscopic and skiagraphic signs. There are conditions in the organs that can be better elicited by the so-called physical method, and others that

can be ascertained only by means of the X-ray. While the rays show small tumors or infiltrated foci that on account of their locality cannot be diagnosticated by the old physical methods, they have the disadvantage always of showing the thoracic image; that is, they represent all the shadows of the tissues situated before and behind the diseased area at the same time. In the early stage of tuberculosis of the lungs valuable information can be derived from irradiation. Skiagraphy is of greater value in this connection than the study with the screen. Solidification as well as exudation and calcification can be well demonstrated. The true nature of the various shadows is often better understood. Thus interlobular exudation may be differentiated, the localization of lung abscesses and gangrene of the lungs is simplified by examining in different positions. Abscesses and gangrene of the lungs appear as light circumscribed foci that contrast with the darker shadows of their walls. Pleuritic effusions show a marked opacity through the fluoroscope. The larger the amount of the effusion the greater the degree of the opacity. In pyothorax the opacity is somewhat less complete than in hydrothorax. Especially on the right side the outlines of the liver show a marked contrast to the lower boundary line of the effusion. The inner boundary line of the effusion generally appears convex, but if the patient inspires deeply or if he coughs violently, it loses its convexity and becomes horizontal. By changing the position of the patient, of course, displacement of the effusion is observed accordingly. Uniform transparency above the effusion points to the result of a simple inflammatory process, while constant opacities of an irregular appearance justify a suspicion of a beginning of tuberculosis. As a rule it is found that the area of dullness corresponds to the area of shadow.

MASON COUNTY.

At the regular monthly meeting of the Mason County Medical Society, held in Scottville September 1, 1903, a large number of the physicians were in attendance, and a most profitable evening was passed.

Our annual meeting will be held in Ludington, September 29th, at which time officers will be elected for the ensuing year, and the following programme will be given:

- I. Discussion on the "Therapeutic Action of Aconite," by Louis Pelletier, of Ludington.

2. Paper. "Therapeutic Action of the Coal-tar Derivatives," by T. J. Foster, of Scottville; discussed by Swabey, of Ludington.
3. Paper. "The Prevalence and Treatment of Gonorrhea," by M. A. Carroll, of Ludington; discussed by A. D. Kibbee, of Custer.
4. Paper. "Syphilis of the Nervous System," by Lee H. Duguid, of Custer; discussed by A. W. Abbott, of Wesley.

W. C. MARTIN, Secretary.

MISSAUKEE COUNTY.

J. G. Reinberg, McBain, in his address as retiring President, recommends that the meetings of the Society be held quarterly to enable all the members to be in attendance. Speaking of the value of the County Society to its members he refers to a united profession as a safeguard against slander and enmity; advocates a blacklist for dead-beats; and as a safeguard against the evils of the patent medicine business, a law which will require the manufacturer to publish on each container of his patent medicine the ingredients of its composition.

He praises the passage of the Nottingham bill as an example of success attained by perseverance, patience and push; and eulogizes the work done during the year by the State Society in behalf of the organization of the profession of the State.

MONTCALM COUNTY.

The annual meeting of the Montcalm County Medical Society is to be held in the City of Greenville, October, 8, 1903.

PROGRAM.

10.30 a. m.

1. Call to Order by the President.
2. Reading the Minutes of the Last Meeting.
3. Communications and Appointments of Nominating Committee and Reception of New Members.
4. Exhibition of Patients.
5. Report of Secretary and Treasurer.
6. Address of President.
7. Paper—Medical Jurisprudence, C. L. Rarden, Esq.
8. Paper—Climatology in the United States with Reference to Disease of the Respiratory Organs, W. P. Gamber. Discussion led by C. O. Jenison.

9. Paper—Venereal Disease, D. K. Black. Discussion led by L. S. Crotser.
10. Paper—Carcinoma of the Breast, Richard R. Smith, Grand Rapids. Discussion, general.
11. Paper—Neuralgia, J. T. Joslin. Discussion led by W. H. Belknap.
12. Diphtheria, S. S. Ludlum. Discussion led by R. H. Blaisdell.
13. Election of Officers.
14. Miscellaneous Business.
15. Adjournment.

Dear Doctor: It is the desire of this county society to enroll in its membership every legally qualified physician in the county.

If you are not now a member, come in and join us, and we will mutually do each other good. The fees are but three dollars a year, and this gives one membership in the State Medical Society also.

This being the annual meeting the fee of three dollars is due from every member.

H. L. BOWER, Secretary.

OFFICERS OF THE SOCIETY.

President—John Avery, Greenville.

First Vice-President—N. E. Bachman, Stanton.

Second Vice-President—F. R. Blanchard, Lakeview.

Third Vice-President—G. A. Stanton, Belding.

Fourth Vice-President—L. S. Crotser, Edmore.
Secretary and Treasurer—H. L. Bower, Greenville.

O. M., C. O., R. O. COUNTIES.

The O. M., C. O., R. O. Counties Medical Society held its regular meeting at West Branch, Aug. 26. Meeting called to order by the President, Stanley N. Insley, and after disposing of the usual business, officers were elected for the ensuing year, to wit: Stanley N. Insley, President, Grayling; C. H. O'Niel, Vice-President, Frederic; Clifford C. Curnalia, Secretary, Roscommon; H. B. Kiehle, Treasurer, Rose City.

After the election of officers the discussion of clinical work was taken up, after which the meeting was closed in due form. After the close of the meeting a social session was held in the rooms of the West Branch Social Club.

CLIFFORD C. CURNALIA, Secretary.

OAKLAND COUNTY.

The annual meeting of the Oakland County Medical Society was held at Pontiac on the 9th of September. It happened that the date for the meeting came on one of the days of

the State Fair, and it was thought best to have simply a business meeting at that time and elect officers for the ensuing year. List of officers:

President—D. W. C. Wade, Holly.

Vice-President—J. J. Moore, Farmington.

Secretary-Treasurer—Wm. McCarroll, Pontiac.

Members of the Board of Directors—E. A. Christian, M. W. Gray, N. B. Colvin, Pontiac.

W. McCARROLL, Secretary.

WAYNE COUNTY.

PROGRAM FOR SEPTEMBER, 1903.

Sept. 3.—Inaugural meeting. Installation of officers. President's address, "Principles of Medical Ethics," by F. B. Tibbals. After the meeting the Society was entertained by the retiring president, F. B. Tibbals.

Sept. 10.—Memorial meetings for the late G. P. Andrews, Donald Maclean and G. B. Russel. Memorial addresses delivered by Leartus Connor, F. B. Tibbals and Delos L. Parker.

Sept. 17.—TETANUS.—Etiology, Diagnosis, Prognosis and Surgical Therapeutics, H. O. Walker.

Bacteriology, Serum-therapy with Animal Demonstrations, E. M. Houghton.

Discussion. Angus McLean, F. J. McHugh and Joseph Sül.

Sept. 24.—Deductions Based on Fifty Fatal Cases of Laryngeal Diphtheria, B. R. Shurly.

Discussion: Willis S. Anderson, J. P. O'Dwyer and D. A. Campbell.

G. L. CONNOR, Secretary.

THE PRINCIPLES OF MEDICAL ETHICS.

F. B. Tibbals, Detroit: In his presidential address first calls attention to the large number of physicians, of students and of medical colleges; and blames for this overproduction lax medical laws, which encourage incompetency by low requirements for practice; and the rapid multiplication of medical schools of low grade. The outlook, however, he considers brighter, because many of the states will soon enforce both preliminary education and sound medical training. To meet these increased requirements the cost of medical education for both schools and students will be greatly increased and only the well endowed and well equipped schools will survive.

He lays down the well-known principles of medical ethics as recently promulgated by the American Medical Association. He urges for even greater liberality of thought in our attitude toward sectarianism and would admit to the

membership of our County Societies the well-qualified sectarian.

He decries advertising in any form as unethical, in poor taste and unnecessary to success and would advocate the establishment of a Press Committee in each County Society whose duty it shall be to prepare articles for the local press on timely medical topics regarding which the public is uninformed, and edit such medical copy as shall be submitted to them by the press, such articles to be signed simply "The Press Committee." He believes such articles, which would be accurate and trustworthy and which would bear the name of no individual, would meet no ethical objection.

MEMORIAL MEETING.

BY LEARTUS CONNOR, DETROIT.*

GEORGE P. ANDREWS, APRIL 9TH, 1838; MAY, 1903.

These dates mark the birth and death of a noble and most lovable man—one who attracted all and repelled none. Dr. Andrews was born at Kailua, on the isle of Hawaii. His father, the late Dr. Seth L. Andrews, of Romeo, Michigan, was a medical missionary in the Sandwich Islands from 1837 to 1849, when failing health compelled his return to the United States. Thus Dr. George was born and spent the first twelve years of his life on the Sandwich Islands.

In common with other missionaries to that region and in that period, his parents suffered great hardships, so as to markedly reduce their own vigor and dwarf the physical development of their children. Food, such as they had been accustomed to, could be secured only at long intervals and in meager quantities—while native food was to them entirely inadequate. Besides the confinement of women and children, necessitated by the licentious habits of the natives, was a great obstacle to appropriating that which was available. Dr. A. B. Lyons, also a son of a Hawaiian missionary, and a keen student of anthropology in the Islands, says that the careers of missionary children bore a direct relation to their feeding and exercise in childhood. Heredity being eliminated by the careful selection of sound missionaries and their wives—the difference in succeeding crops of children could be definitely located in the two factors of feeding and exercise.

The limited physical vigor of Dr. Andrews unquestionably exerted a vast influence upon his career. It debarred him from attempting either physical or mental tasks demanding extraordinary resources of physical vigor; it made the rigors of

*Read before the Wayne County Medical Society Sept. 10, 1903.

Michigan climate peculiarly trying, so when warned of ebbing vitality, he sought refuge under the sunny skies and in the balmy air of his native isle in the Pacific.

He prepared for Yale College at Andover Academy, but health forbade his taking a college course. Later he began the study of medicine at Chicago Medical College, where his uncle, Edmund Andrews, was professor of surgery. Later still, he entered the College of Physicians and Surgeons of New York, whence he graduated in 1861. His academic and professional student careers were marked by the highest excellence in both manhood and scholarship.

Coming to Detroit shortly thereafter, he became assistant surgeon at the Government Hospital on Woodward Avenue, through the site of which Martin Place now runs, continuing there till the close of the war. He took an active part in shaping the medical history of Detroit during the formative period which followed his locating therein. Thus, in 1886, in conjunction with Drs. Theo. A. McGraw, Edward W. Jenks and Samuel P. Duffield, he founded the "Detroit Review of Medicine and Pharmacy," which, under various names, but with the same object, lived till 1894, and exerted a profound, though quiet, influence in moulding medical men and affairs. He ceased editorial activity in 1871, transferring the Review to other hands, though he long contributed to its pages. Of his helpfulness to his successors in all possible ways, the writer can abundantly testify.

In 1866 he was one of the charter members of the Michigan State Medical Society, and continued in active service therein while a resident in the United States. The stormy sessions of its earlier years were repugnant to his quiet tastes, but his good judgment, and faithful support of his friends did much for the betterment of the profession through the society. None rejoiced more than he at its recent evolution by which it is destined to unite in harmonious activity every physician in Michigan for the common interests of all and the advancement of medicine.

Dr. Andrews was prominent in the movement which established the Detroit Medical College in 1868, and secured for it the clinical material of Harper's and St. Mary's Hospitals and founded the outdoor clinics in connection therewith. As teacher of practice of medicine till 1881, he exerted a profound influence upon the lives of his students, and through them upon the profession. He was a clear thinker and exact speaker, with rare discrimination of what should be emphasized and what omitted. His method of unfolding the intricacies of clinical cases and his kindly, yet forceful manner were an inspiration to every

student. Being a model general practitioner, he was a living lesson of medical ethics and professional manners.

Dr. Andrews was one of the founders of the Children's Free Hospital and continued in its service till removal from the city. Here, as well as at Harper's and St. Mary's Hospitals, there still linger traditions of his native shrewdness, keen analysis of cases, devotion to and kindly management of patients, telling of a large manhood, unusual professional attainment, and exceptional skill.

With the opening of the third period in the development of the Wayne County Medical Society, in 1866, Dr. Andrews was present to do his part, and continued till the close of this period, in 1876, when, with his associates, he gave his energies to the founding of the Medical and Library Association.

He was a charter member of the Detroit Academy of Medicine, founded in 1868, and actively promoted its interests while a resident in Detroit. During 1876-77 he was its president. His annual address was a model of scientific scholarship, while his numerous papers, read before this society, exhibit a large storehouse of facts, and a rare facility of massing them in support of his views. Dr. Andrews was an omnivorous student, well versed in literature, art, philosophy, history, poetry, and all branches of natural science. For his time, he was an expert in the use of the microscope, using it to unravel intricate cases and to peer deep into the unknown. A botanist of more than average attainment, he for years maintained a hothouse for the growth of rare and interesting plants—taking pleasure therein, as other physicians did in hunting, fishing or fine horses.

His studies of oriental rugs, etchings, pottery, and a host of similar things occupied niches of time left from professional engagements, and better fitted him to understand the lives and minister to the needs of a large class of his patients.

Politically a republican, he was interested in the best interests of the city, state and county, but he never took an active part in any of the struggles of politicians—in their endeavors to benefit themselves at the expense of others.

In early life he became a member of the Congregational church, and though unostentatious, both in his beliefs and their manifestation, he was universally held in high esteem for his practical Christian character, overflowing in kindly words and helpful deeds to all with whom he came in contact.

Soon after graduating he married Miss Sarah Dyar, of Romeo, Mich., who, with one daughter, Miss Winifred, survives him. One son and one daughter died in early childhood, to the lasting

sorrow of their parents. Dr. Andrews' family life was singularly happy, so that no person ever detected a shadow crossing its threshold, in spite of the numerous trials and disappointments which beset its career.

To his friends—and all who ever knew Dr. George P. Andrews became his friends—he was uniformly instructive without being pedantic and singularly faithful; once his friend always his friend. To such he had the rare faculty of being able to tell their faults so as to secure the desired result, not only without giving offense, but actually intensifying their friendship.

For a time he was professionally associated with Dr. Morse Stewart, and later with Dr. N. D. Stebbins. The latter took great delight in promoting Dr. Andrews' interests and commending him to his own friends and former patients. Dr. James F. Noyes induced him to remove from the corner of Congress and Shelby to the corner of Fort and Shelby, and ever after classed him among his closest friends, to their mutual benefit.

The writer has occasion to remember him as the first doctor he met after coming to Detroit, and as the truest friend of his professional life. After an inside knowledge of him for more than thirty years, he can truthfully affirm that there never lived a better physician, a truer man, or nobler friend. As he had been helped he delighted to help others, and heartily rejoiced in their success. Envy, jealousy, evil speaking, uncharitable judgments, and those other nameless traits that separate physicians from each other and cause scenes over which angels weep, were as far from him as the east is from the west.

When shadows crossed his path, when death desolated his home, when misfortune depleted his finances, and ill-health claimed him as its victim, he was never known to repine or reproach either man or Maker.

From various causes, ill-health restricted his activity, till 1890, when he removed to the Sandwich Islands. For a time this availed to enable him to serve a large and increasing clientele, but undue exposure and overwork again threw him to earth. Extensive travel, and sojourn at famous sanitariums with the skill of celebrated specialists, failed to restore vigorous health. Now, conscious that long years of disability and suffering awaited him, he took up the burden of life, qualified himself for a portion of practice more in accord with his physical limitations, and continued the unequal struggle till, suddenly, his heart ceased to beat and his spirit flew to the land of unalloyed health.

Except for the starvation of his mother anterior to his birth and himself during infancy and childhood, Dr. George P. Andrews would be following

the example of his uncle, Edmund Andrews, in wide, diversified scholarship, clean-cut, wholesome manhood and professional eminence these many years and have escaped the agonies of more than a decade of constant suffering. That he accomplished so much along such varied activities all who came within the range of his activities were devoutly thankful.

It is a perpetual benediction to have known a character so pure, a life of such combined strength and gentleness; a physician so learned, and eager in the pursuit of new truth, so skillful, patient and unfaltering to the highest ideals inherited from the past, realized in the present, or hoped for in the future.

RESOLUTIONS ADOPTED BY THE WAYNE CO. MEDICAL SOCIETY.

WHEREAS, Death has removed from earth Dr. George P. Andrews, a charter member of the Second Wayne County Medical Society,

WHEREAS, Dr. Andrews, during three decades of residence in Detroit, endeared himself to his colleagues by a marked exemplar life,

WHEREAS, He was active in all enterprises for advancing professional attainment and honor—as the founding of Harper and the Children's Hospitals—of the Detroit Review of Medicine and Pharmacy, and the Detroit Medical College,

WHEREAS, He was not only active for a decade in the Wayne County Medical Society, but was a charter member of the third evolution of the Michigan State Society, of the Detroit Medical and Library Association and Detroit Academy of Medicine,

WHEREAS, He was for many years a teacher of Practice in the Detroit Medical College, and always a contributor of sound medicine to medical journals, thus building his life into the lives of the coming profession.

Resolved, That we express our appreciation of the noble manhood, high professional attainment and superb record of our departed colleague.

Resolved, That we tender our heartfelt sympathy to his bereaved family.

Resolved, That these resolutions be spread upon the minutes of the Society and a copy be sent to the family and Journals.

—
DONALD MACLEAN, 1839-1903.

I wish to speak, not so much biographically, as from the standpoint of the personal characteristics of the man, whom all of us knew and many of us loved.

His father, though blind from the age of 15, went through Edinburgh University with the aid of a private tutor, fitted for his chosen

profession, the ministry, only to be refused license to practice because of his disability, yet with indomitable will, he emigrated to the then wilds of Canada, where, on December 4, 1839, Donald was born, the oldest boy of eight children. His father's physical handicap early made the boy more like a parent than an elder brother to the younger brothers and sisters, who looked to him always for advice, comfort, succor and support. This strong heredity, strengthened by infirmity, made the son manly, self-reliant, tender-hearted and courteous. His preliminary education was obtained jointly in Canada and Edinburgh, where, in 1862, he graduated in medicine, soon coming to this country for a year or two as acting assistant surgeon, U. S. A. In 1864, when but 25 years of age, he was appointed professor of surgery at Queen's University, Kingston, Ontario, coming to Michigan in 1872, to occupy the same chair at Michigan University, where he taught and operated for 17 years, resigning in 1889 on account of a disagreement with the regents concerning the feasibility of maintaining the clinical part of the school in Detroit. He was highly honored by his profession, being elected president of the State Medical Society in 1884; Detroit Medical Library Association in 1887, and the American Medical Association in 1894.

As a general surgeon he had few superiors, and not a large number of equals. His anatomical knowledge, gained in the rigid school of Edinburgh, combined with a natural technique, made him the ideal operator—bold and skillful, quick, yet careful. As a favorite pupil and assistant of Syme, he acquired great dexterity in the operations which made Syme famous, amputations, resections and lithotomies, and while he perhaps failed to grasp the refinement of technique of the more modern abdominal specialist, still, in the main, few could surpass him in the dramatic rapidity of his work and the safety of his patient.

As a teacher, he stamped his magnetic personality in indelible characters upon the surgery of the middle west, and hardly a village or city between the Ohio and the Rockies but contains a surgeon whose proud boast it is that Donald Maclean gave him his surgical inspiration. He was a ready writer, a forceful speaker, a deep thinker, a lover of literature and the poets, and though professedly an agnostic, keenly alive to the beauties and teachings of the Bible. He loved nature and all her offspring, the woods and flowers, the birds and animals, and best of all, the children and the children of but a larger growth his fellow men. His great big heart was full of love and tenderness, and sorrow, pain, care and suffering, physical or mental, found in him al-

ways a sympathetic, helpful friend. Generous, too generous for his own good, he loaned or gave away thousands of dollars and even the "bummer" never left his door empty handed.

Professionally, he was the soul of honor, abhorring quackery and charlatanism, protecting always the brother practitioner and dealing honestly with all his patients, regardless of financial considerations.

The medical controversies of the old days found him ever in the thick of the fight, but he always fought in the open, and though a strong and valiant foe, was quick to acknowledge error if in the wrong. To his friends he was the best of friends, particularly kind to the younger men, and many of us will cherish as lifelong memories his helping hand, and the mantle of professional charity laid tenderly and lovingly over our errors of omission and commission.

In recent years his health was broken by family sorrow and financial losses, and in some ways he fell mentally and physically below the standard of the old "Mac—," who, in his prime stood upon the top of the professional ladder, honored alike by doctors and laymen, with a hand ever ready to assist the man below.

Let us remember him as in those happy days when his stalwart form, strong, but kindly face, massive brain and tender heart were loved by most of us and esteemed by all.

FRANK BURR TIBBALS.

RESOLUTIONS ADOPTED BY THE WAYNE CO. MEDICAL SOCIETY.

WHEREAS, Donald Maclean, intellectually a giant, professionally an honest man, socially the most lovable of men, and, as a surgeon and teacher of surgery, a magnetic inspiration to the developing surgery of the middle west, passed from our midst July 24, 1903.

Resolved, That we mourn his loss and will long cherish the memory of his surgical knowledge, his professional probity, his kindly heart and genial nature.

GEORGE B. RUSSEL, M. D.

Dr. George B. Russel, a member of the Wayne County Medical Society, dean of the medical profession of this vicinity and for sixty-seven years a prominent citizen of Detroit, died at his home in this city, August 31st, 1903, at the advanced age of 87 years.

Dr. Russel came to Detroit from his native State of Pennsylvania in 1836, the year in which he was graduated from Jefferson Medical College at Philadelphia. Upon his arrival here Dr. Russel found little to suggest the Detroit of today. Instead of a large city, possessed of beautiful

streets, parks and boulevards, and equipped with marvelous systems of transportation, lighting and other utilities, he found a straggling frontier town of some six thousand people, of which he himself later gave an account as follows:

"It had been an old army post. Its main settlers were the French people, in number about four thousand, while the remaining two thousand people were made up of the families of the officers and soldiers of the army, the varied newcomers arriving and passing on in search of new homes further west, and the mechanics and artisans needed in such a population, for the French were all hunters, farmers, fishers and gatherers of furs. * * * I was in Detroit ten years before the roads were in a condition fit to drive a horse and vehicle over."

Into such a field, already occupied by twenty-two physicians, came Dr. Russel to work out his career.

To any of us giving thought to the matter it is clearly apparent that success could be attained under circumstances such as these only by those endowed with unusual strength, both mental and physical. Dr. Russel, however, found himself equal to the demands of the situation.

While still young his father had placed him under the care of the most able teachers of his native state. Among these was Dr. Daniel Fuller, whom Dr. Russel used to speak of as "the lawyer, the doctor, the wise man, called the Socrates of America, who knew everything and some things besides." After a full college course, in which instruction in the classical languages formed a prominent part, the future doctor matriculated at Jefferson Medical College, from which he was graduated, as has already been said, in 1836.

Some years before entering Jefferson College, Mr. Russel, as he then was, had decided upon a medical career for himself, and had spent considerable time in the offices of Drs. Humes and John L. Atlee, at Lancaster, Pa. Thus, at the outset of his medical studies, he had the advantage of being under the direction of the best medical talent of his day. Afterward, while at college, his good fortune in this respect continued. For there he received instruction from Drs. George McClellan, a leading surgeon; Patterson, an authority on the anatomy of the brain, and Riviere, a prominent and skillful practitioner in medicine. As a result of these courses of education, Dr. Russel entered upon the practice of his profession with a mind as well drilled in the intricacies of his art as the best instruction the country could secure.

In addition to the attainments just mentioned, Dr. Russel was fortunate in possessing natural qualifications that rendered him particularly well

qualified to meet the demands and exactions of an arduous profession.

Of these a keen sense of humor was not the least important. Dismal, indeed, had to be his surroundings, and gloomy the outlook when Dr. Russel couldn't detect somewhere a ray of color, and, having found it, bring it to the notice of his companions by means of an apt quotation from Horace, Shakespeare or other favorite author.

The soundness of his mind was equaled also by the soundness of his body. Tall, strong, muscular and healthy, with the health of sturdy Scotch and Irish stock, he possessed physical powers that for years overcame hardships and survived tests of endurance, that otherwise must have greatly restricted his extended field of endeavor.

With this fine equipment Dr. Russel, at the age of twenty, entered upon the practice of general medicine in what is now the great city of Detroit.

As said above, this was in 1836. Once here, Dr. Russel had not long to wait for work. Within one year from the time of his arrival he found himself in the possession of one of the largest practices in Michigan. This he looked after in the double capacity of village practitioner and country doctor in combination. Indeed, the duties connected with the latter calling for many years far surpassed in importance those connected with the former. For besides his village practice, Dr. Russel had a horseback circuit that extended on the Canadian side of the river from Amherstburg to Belle View, eighteen miles above Windsor, and on this side from Trenton to Lake St. Clair, as well as on the Gratiot road to Mt. Clemens and Romeo, the Woodward road to Royal Oak, Birmingham and Pontiac, Grand River to Farmington and Michigan avenue to Dearborn and Wayne.

Of the diseases that prevailed to the greatest extent during the period extending from the 30's to the 60's, Dr. Russel found malaria, typhoid fever and abdominal diseases the most prevalent and of more frequent occurrence than was the case later on.

Epidemics of contagious and infectious diseases also were more frequently met with in the early years of Dr. Russel's practice than at a later period.

During three years, from 1837 to 1840, smallpox raged and epidemics of cholera existed in 1849, 1852 and 1854. Of his experiences in connection with these diseases, Dr. Russel could have filled many volumes had he taken the pains to write them down. He used to say his teachings and experiences had led him to have no more personal fear of cholera than he had of tertian ague, and

also that they had enabled him to cure the former about as readily as he did the latter.

During the smallpox epidemic, spoken of above, Dr. Russel erected, at his own expense, a temporary hospital on the site of the house of correction, where he cared for many sufferers with this disease.

During this same epidemic there occurred an incident in his practice to which, in after years, he frequently referred to with justifiable pride. Hearing that smallpox had broken out among a band of Indians camped on Connor's Creek, a few miles northeast of the city, he at once visited the place, and with the aid of Mr. Richard Connor, who died a short time ago, and sister, Therese, he vaccinated 700 Indians in twenty-four hours, and so successfully did he perform this task that not one of those exposed to the contagion contracted the disease.

Later the government sent him a check for \$700 in recognition of the great service he had rendered its helpless wards.

Dr. Russel had not been long in practice in Detroit before the need of better facilities for the care of the sick than the place then afforded, forced itself upon his attention. With characteristic energy he no sooner appreciated this condition of affairs, than he set about to remedy it. This he accomplished by inducing Mr. Harper and Nancy Martin to found Harper Hospital and then by serving as chief medical officer of this institution for a continuous period of twenty-five years.

For twenty-seven years Dr. Russel devoted all his energies to the care of his large practice. Afterward he turned his attention to a great extent, to the development and conduct of various industrial enterprises.

He did not, however, lose touch with the profession. To use his own words, "There remained for me the care of a large family, many relatives and friends, and the poor among the host of my employees. These have all given me daily work and experience."

In May of the present year the Wayne County Medical Society held a banquet in honor of the three oldest practitioners within its ranks. These were referred to at the time as the Nestors of the medical profession of Detroit and included Dr. Russel, Dr. Morse Stewart and Dr. Herman Kiefer. Each of these gentlemen on this occasion favored the large gathering of doctors present with some account of his medical life and experiences. These were all most interesting.

Dr. Russel's address was under the title "Sixty-seven Years of General Practice, with Some Reminiscences of the Giants of the Profession Half a Century Ago."

In this paper Dr. Russel discussed men—his instructors in medicine and his contemporaries in the profession, and events connected with them and himself. Throughout his references to his confreres were most kindly. And these, and other references, not of a personal nature, were chosen with such discrimination and attention to detail that his hearers were at a loss to know which they admired the more—the keenness of the old doctor's powers of observation, or the perfection of his memory.

A most interesting feature of the paper was the statement that when Dr. Russel attended Jefferson College the professors of this venerable institution of learning were giving instruction in accordance with the French school of medicine, as set forth by Bichat, Andrall, Richerand, Laennec, Corvisart, Dupuytren, and particularly Broussais, a school that abandoned, to a great extent, the heroic in the administration of drugs and extolled the importance of a regulation of the diet in the treatment of disease.

These teachings, so in accord with those of today, were thoroughly assimilated by Dr. Russel and, as he himself often asserted, had much to do with the success he attained in his practice.

Lack of time forbids an extended quotation from this address. It must be said, however, that it not only brought pleasure and instruction to those who had the good fortune to hear it, but what is of greater importance, if furnished at the time and will continue to furnish a permanent record of a portion of the medical history of Michigan which to the future historian will prove invaluable.

In closing, the paper just referred to, Dr. Russel used the following words:

"Before the accident which disabled me sadly (an injury to his hip from a fall) and which occurred six years ago, during my eighty-second year, then in the prime of life, I had booked me to live until I was a hundred years old, and then, when the end came, to fall as the leaves fall with the first frosts of October, or like ripe fruit, drop into the lap of Mother Earth, or like Holmes' 'One Horse Shay at the end of a hundred years, all at once, fall into a heap of dust.'

"But now I feel that I must discount this estimate somewhat, for if the downward pace is quickened in the years to come as has been the case in the last year, I cannot book me to stay with you all of the twelve years more before I shuffle off this mortal coil."

Dr. Russel's address was under the title, "Sixty-seven Years of General Practice, with Some Reminiscences of the Giants of the Profession Half a Century Ago." The doctor's limit of life under ordinary circumstances was left undetermined through an unfortunate accident. On August 24, 1903, while standing at a street corner waiting for a car, he was

struck by a bicycle and thrown to the pavement. Before he could rise a passing wagon ran over his arm and shoulder. The doctor was at once taken to his home where an examination revealed many bruises and cuts, but no broken bones. The shock, however, resulting from this double accident was more than the old doctor accident he sank quietly to his long rest.

DELOS L. PARKER.

RESOLUTIONS ADOPTED BY THE WAYNE CO. MEDICAL SOCIETY.

WHEREAS, Death has removed from our midst our late fellow-member, Dr. George B. Russel, and,

WHEREAS, From the time he entered the medical profession up to the time of his death, a period of sixty-seven years, Dr. Russel lived continuously in the city of Detroit, and left the impress of his influence upon his community and calling, to the great advantage of both; therefore, be it

Resolved, That in the death of Dr. George B. Russel, the Wayne County Medical Society laments the loss of a member whose long life so accorded with the requirements of exalted citizenship, and the best traditions of his chosen profession, that he brought great honor not only to this Society, but also to the profession of medicine as a whole.

Resolved, That the heartfelt sympathy of this society be extended to his family in their affliction.

Resolved, That these resolutions be published in the Journal of the Michigan State Medical Society and a copy forwarded to the family of our departed friend by the Secretary of this Society.

CHANGES IN MEMBERSHIP.

Aug. 15th to Sept. 15th.

NEW MEMBERS.

- J. S. Edwards, Grand Rapids.
- F. J. Hackney, Lupton.
- F. N. Henry, 1444 Michigan Avenue, Detroit.
- S. E. Kerby, Battle Creek.
- H. E. Locher, Grand Rapids.
- F. S. Love, West Branch.
- B. W. Pasternacki, 254 Canfield Avenue, East, Detroit.
- C. E. Patterson, Grand Rapids.
- E. M. Payne, Grand Ledge.
- J. R. Rogers, Grand Rapids.
- L. S. Town, Geneva.

CHANGE OF ADDRESS.

- J. R. C. Carter to Rudyard, Mich.
- C. S. Hosmer to Portland, Oregon.

- L. C. Jones to Kalamazoo, Mich.
- A. S. Kitchen to Escanaba, Mich.
- I. G. McGuffin to Hastings, Mich.
- J. W. Mitchell to Bridgeport, Mich.
- J. B. Rice to Fenton, Mich.
- R. H. Steinbach to Richville, Mich.
- Vincent Wijetunge to Lansing, Mich.

PERSONAL MENTION.

Dr. A. L. Laing, of Rapid River, will open a private hospital about the first of October.

Dr. A. C. Gillam, who has been located in Escanaba for the past six months, has accepted a mining position in Arizona.

DETROIT CLINICAL LABORATORY.

The Detroit Clinical Laboratory staff will give a series of lectures with demonstrations upon the Application of Modern Laboratory Methods in Diagnosis. The lectures will be given Tuesday, Wednesday and Friday evenings of each week, at 8:30 o'clock sharp, in the Detroit Clinical laboratory, 33 Mullett street. Cards will be issued for \$5.00 entitling the holder to attend the full course. Physicians wishing to avail themselves of the opportunity should register at once, as the course must necessarily be limited in numbers.

SYNOPSIS OF LECTURES.

Radiography, Preston M. Hickey.

Tuesday, September 1st.—Theory of the Roentgen Ray; Methods of production.

Wednesday, September 2nd.—Radiographic Technique.

Friday, September 4th.—Radiographic Anatomy, including development of the skeleton.

Tuesday, September 8th.—Radiography in its relation to surgery.

Wednesday, September 9th.—Radiography in its relation to surgery.

Friday, September 11th.—Radiography in its relation to internal medicine.

Dr. Hickey will demonstrate the radiographic apparatus in use, and illustrate his lectures with a large number of skiagraphs which have been taken at the laboratory.

Hematology, Thaddeus Walker.

Tuesday, September 15th.—Methods and technique of blood examinations.

Wednesday, September 16th.—The Erythrocytes, pathological changes, their classification; Hemoglobin; Color-index.

Friday, September 18th.—The Leucocytes, classification; Leucocytosis; Lymphocytosis; Eosinophilia; Leucopenia.

Tuesday, September 22d.—The Anaemias, Chlorosis, Pernicious, Secondary and Splenic.

Wednesday, September 23d. — Leukaemia; Hodgkin's Disease; Anaemias of Childhood.

Friday, September 25th.—The blood in various diseases—Appendicitis, Typhoid, Pneumonia, Malignant diseases, Malaria, etc.

Dr. Walker will demonstrate the various instruments used, show blood specimens under microscopes and illustrate the subjects with charts.

Pathology, Heneage Gibbes.

Tuesday, September 29th.—Inflammation.

Wednesday, September 30th.—Diseases of the lungs.

Friday, October 2d.—Diseases of the kidneys.

Tuesday, October 6th.—Neoplasms.

Wednesday, October 7th.—Neoplasms.

Friday, October 9th.—The female generative organs.

Dr. Gibbes will illustrate his lectures with charts, drawings and microscopical slides.

Bacteriology, Joseph Sill.

Tuesday, October 13th.—Bacteria, their morphology and biology; their culture and examination.

Wednesday, October 14th.—Infection; Immunity.

Friday, October 16th.—Causative agents of inflammation and suppuration.

Tuesday, October 20th.—Diseases of bacterial origin, Typhoid, Cholera, Plague, Diphtheria, Tetanus.

Wednesday, October 21st.—Tuberculosis, Influenza, Gonorrhoea, etc.

Friday, October 23d.—Serum reactions.

Dr. Sill will demonstrate the apparatus used in his work, and also exhibit the different bacteria in culture and under the microscope.

DEPARTMENT OF HEALTH.

CITY OF PORT HURON, MICH.

REPORT OF VITAL STATISTICS

for the Month of August, 1903.

CAUSES OF DEATH

Paralysis.....	3
Spasm of Glottis.....	1
Heart Disease.....	1
Carcinoma of Stomach.....	1
Arterio Sclerosis.....	1
Pernicious Anaemia.....	1
Anasarca (general).....	1
Cholera Infantum.....	2

Intussusception of Bowels.....	1
Dysentery (acute).....	1
Bright's Disease.....	1
Parenchymatous Nephritis.....	1
Sarcoma.....	1
Alcoholism.....	1
Old Age.....	1
Still Birth.....	3

CONTAGIOUS DISEASES REPORTED DURING MONTH

Typhoid Fever.....	1
Consumption.....	0
Measles.....	0
Diphtheria.....	1
Scarlet Fever.....	0
Smallpox.....	2
Whooping Cough.....	0
Chicken Pox.....	0

CONTAGIOUS DISEASES REMAINING ON HAND AT END OF MONTH

Typhoid Fever.....	1
Consumption.....	3
Diphtheria.....	0
Scarlet Fever.....	0
Measles.....	0
Smallpox.....	0
Chicken Pox.....	0

A. H. COTE, M. D., Health Officer.

A YEAR'S EXPERIENCE IN ORGANIZATION IN MICHIGAN.

LEARTUS CONNOR, M. D., DETROIT.

(Continued from September, 1903, page 418).

Should the councilor fail, his vice-president steps in to awaken him to duty. If he too fails, the president exercises his natural prerogative and stirs each to the desired activity. In Michigan it is expected that the president shall personally visit as many of the branches as possible, make a speech, read a paper, or hold a clinic, and in general use his office to increase the activity of the branches. Our late president set the pace for his successors in this direction.

Experience taught the councilor, when striving to organize or vivify a branch, that success followed a diversion from local quarrels and disputes to broader and larger questions affecting state or national interests. Fired with a larger thought, personal interests quietly dropped into their natural relationships. By such a method the writer has often seen a discordant group transformed, within an hour, into a smiling band of co-workers, ready to do and dare for the larger idea, that which its success demanded. In fact, the largest returns from organization spring directly from this law—as the organizers go out of themselves to help others their true selves come

into view—selves that make for all that is best in the profession, in manhood and citizenship.

The council's report showed that last September it started a journal, under the management of the secretary-editor, which had succeeded beyond expectations, in awakening and continuing interest among the branches, and its future looks very promising. The same report showed that experience was teaching the council how to secure increasingly large returns from the funds at its disposal, and how to adjust the difficulties between individuals or branches for the common good.

Intelligent work, persistent and helpful to every physician in the state, is the secret of such success as has obtained in Michigan. To this end most of the officers of last year were re-elected, and the outcome demonstrates the wisdom of the act. The fundamental platform of modern organization is the selection of officers for their known fitness and ability, to serve, not as figure-heads or little gods.

The power of seventeen hundred united physicians in Michigan, as compared with that of five hundred discordant ones, has indicated itself in many ways.

(1) It has given a self-confidence to the Michigan profession heretofore unfelt in its ability to help its members, the outside profession and the people. (2) It has spoken to the legislature and secured a more respectful answer, because it had votes, and because the chances were greater, that it expressed larger truth. (3) As six hundred members gathered in Detroit at its late meeting, the laity saw a vast concourse of physicians clearly trusting each other. It reasoned that if these learned men so evidently trust each other, we may trust them, so the people as rulers of the land had a lesson that the new profession, with modern organization, is certain to develop a profession in which "he that is greatest is servant of all."

LEARTUS CONNOR, A.B., M.D.,

Chairman Council Michigan State Medical Society.

A NEW AND VALUABLE HYPNOTIC.

The manufacture of new soporific medicines has not always been justified by the results, but some unusual virtues may be discerned in a recent synthetic production, veronal. This preparation, first described by E. Fischer* and J. von Mering,† is one of a series of compounds of urea; its chemical

name is diethylmalonylurea, a designation which reveals a relationship to other hypnotics. In many of its properties it resembles trional, and all the evidence shows that it effects its work without changing the character of the blood or causing any disturbance of the respiratory function. In addition, it seems to have a considerable range of action, being useful in ordinary sleeplessness and meeting with a tolerable degree of certainty the more violent resistance of hysterical psychoses and acute mania.

These merits, considering the disappointing results we have had with new hypnotics, make veronal an object worth study and careful observation. Not being a proprietary or costly article, it has not the objections to its use that have some other remedies of the same kind, which, it is just to say, would find their good qualities acknowledged if it were not for their prohibitive price and commercial significance.

Veronal, we observe, has been used alone—uncombined with any other hypnotic—but it is far more effective in combination. W. Fischer and Poly, in their published reports of its clinical effects, have administered it in doses of half a gramme to a gramme without the aid or association of another drug of similar nature. That, singly, it should have done such good service in so many varied cases is sufficiently expressive of its claims to consideration. It should be remembered, however, that veronal, like many other products of modern chemistry, is a highly complex substance with numerous chemical ramifications. On these grounds, as well as on physiological and on that of a similarity of physical properties, we consider it as perhaps the best illustration of a valuable principle—nowhere more effective than in the class of soporifics—of combining two of these agents with powers supplementary of each other.

We venture to say that this principle—long known—has been too negligently observed by physicians. As an example, in the sphere of modern hypnotics, we do not know of a more certain and effective combination than that of trional and sulphonal, in the proportion of one to two, precisely because these two reinforce each other. In the whole range of therapeutics there is probably no more powerful and trustworthy aid in an extremity than the old combination of bromide, chloral, and opium (Brunton), but unfortunately there are grave objections to its general use. In the case, however, of such a union as veronal and trional these obvious objections do not present themselves, and, we think, these two drugs will appeal to the minds of our readers as logical allies, capable of producing better results together than either used alone. In fact, from the experi-

*E. Fischer and J. von Mering, *Die Therapie der Gegenwart*, March, 1903.

†W. Fischer, *Therapeutische Monatshefte*, August, 1903.

ence at hand, we entertain little doubt of the utility of combining veronal and trional in the proportion of two to one. Both have a cumulative action, which shows itself in a gentle and continuous somnolence, without any toxic appearances; the remedial effects of this drowsiness are, in many cases, inestimable. We advise the taking advantage of this property by beginning with a full dose, ten grains of veronal to five of trional, and continuing with smaller doses when the cumulative action appears. It would be rash to say that this forms an ideal hypnotic, but we believe without hesitation that it brings us a step nearer the goal of that desirable fruition.

ROBERTS BARTHOLOW.

Editorial, N. Y. Med. and Phila. Med. Jrn., for Sept. 19, 1903

MEDICAL ORGANIZATION.

Extract from paper by Dr. J. N. McCormack, Journal American Medical Association, Sept. 19, 1903.

SMALL AND SPARSELY SETTLED COUNTIES.

To most physicians the glamor of numbers, of a crowd, of elaborate papers and sonorous discussions is always associated with the idea of a successful medical society. Next to the conviction that physicians can not live together in peace, it will be the most difficult of the misconceptions councilors will have to combat. Yet nothing could be further from the truth. The New York Obstetrical Society, one of the most famous and useful of the older organizations in this country, was limited by its charter to fifteen members. When five, eight or ten congenial medical spirits get together and fail to have an interesting and instructive meeting it is not the fault of those who are absent. One of the most useful societies the writer has ever known was organized by him on a chance visit in a county containing but four physicians. They were torn by the usual wrangles and dissensions, and the profession was at a low ebb. Three of them were comparatively young men, and after getting together in their society, and understanding each other, one after the other in turn went away for post-graduate work, the others dividing his work and giving him the proceeds. One of them had a taste and ability for surgery, and by an equitable and satisfactory arrangement he did that part of the practice, which had formerly been sent away or been done by surgeons called from a distance, at far greater expense and probably no better results, or more frequently the cases were left to suffer and die without attempt at relief. Under better business methods a large element in the community which had found it cheaper to change physicians than to

settle their accounts, although abundantly able to do so, were induced to contribute their part to such a support of the profession as enabled its members to qualify and equip themselves for the benefit of these as well as their more honest neighbors. This society was as much a blessing to the people of that community as to the profession, and organized and conducted in the proper spirit this will always be true. Of course, much must be left to the discretion of the councilor after he has informed himself as to the conditions by conference with the physicians in such counties, but where as many as three, four or five fairly young, live men can be found it will be better for them to get together and maintain a separate organization. If they can be made to understand it and each other it is a question whether the individual benefits will not be even greater than will come to those of the more densely populated counties.

CONCLUSION.

The Association plan is almost perfect in its conception, scope and purposes, and yet it is believed to be entirely practical. Changes in detail may be required as the work progresses in the various states to adapt it to changed conditions, but these can be easily made. How far its benefits are to be extended to any particular county or state must be determined by its own profession, assisted by every possible influence from the outside when needed. To say that much time and increasing effort will be required to perfect such an organization, that many obstacles will be encountered, and that individuals will fail to do their duty or obstruct the work, is only to say that the undertaking is a vast one, that the agencies relied on are finite and that it is subject to the vicissitudes attending all human endeavor. Our contention is that it is worth all the time, labor and money it will cost, and more. Ours is rapidly becoming a great science. Our leaders are among the greatest of living men. With proper ideals kept constantly before our young men, and the present facilities for attaining them unknown to any other age, and impossible even to the older men of the present generation, with harmony and co-operation made possible and encouraged everywhere, and all supported by a public confidence inevitable because it will be deserved, everything desirable will be brought within reach of the profession. The vexed problem of medical education can then be taken up with confidence and justly and wisely solved. The question of reciprocity in licensure and membership between the states can be settled on some safe and equitable basis. Provision for continuous scientific research and for systematic collective investigation into the causes and prevalence of disease can be made on

the broad and generous lines demanded by the great interests involved. Constructive statesmanship can be substituted for the narrow, time-serving political methods of the present in municipal, state and national public health affairs, and our profession, united, educated and ennobled, will then occupy its rightful place as one of the greatest powers for the protection and elevation of the race.

Communications.

Mackinac Island, Mich., Aug. 27, 1903.

A. P. Biddle, Sec. Michigan State Medical Society, Detroit, Mich. :

Dear Doctor: I have the honor to acknowledge receipt of your notification of my election as honorary member of the State Medical Society, and desire to officially inform the members how greatly I appreciate the compliment.

Very respectfully, JOHN R. BAILEY.

Book Notices.

CONTRIBUTIONS TO MEDICAL RESEARCH, dedicated to Victor Clarence Vaughan by colleagues and former students of the Department of Medicine and Surgery of the University of Michigan, on the twenty-fifth anniversary of his doctorate.—Ann Arbor, Michigan. George Wahr, publisher, 1903, pp. 620.

'Tis a pleasant custom which induces the friends of an individual to place a mark in his book of life as he turns the page at notable periods. The marks are of various kinds, in this they chose to make it a large and sumptuous book written by themselves on topics with which they are familiar, recording some new things which studies beyond known boundaries brought to their consciousness. These friends tunneled farther into the mountain of truth and found nuggets of more or less value which they bring to Dr. Vaughan as their token of their esteem.

It may not be that all these researches present new truth capable of standing the cross-examination of other workers in the same field, but all have the common spirit, and we shall hope, the ability to hold their own against all combatants.

Nearly every field of medicine and surgery is touched at some point; surgery, general and special; medicine, general and special; anatomy, general and special; physiology, general and special;

pharmacology; chemistry, organic and inorganic; bacteriology; pathology, histology and histological anatomy, etc.

As might be anticipated, we find characteristics of each author, so closely is individuality associated with his work—especially original work. Thus we find Dr. L. S. Pilcher saying, "Present experience warrants the statement that surgery can promise a very large proportion of absolute cures to cases of cancer of the breast, if its resources are employed as soon as the presence of the disease is determined."

Dr. Franklin P. Mall, from a study of seventy pathological ova concludes: 1—"The embryo may be destroyed quite rapidly in the young ovum and the cause probably lies within the embryo itself." 2—"Primary changes in the chorion may cause strangulation of the embryo, which is followed by a variety of pathological changes."

Dr. Henry Sewall shows that simulated reduplication of the first heart sound is frequent, and is due to some abnormal anatomical relation between the left plura and the pericardium—commonly points to some inflammation of the left plura, and occurs in the tuberculous.

Dr. William H. Howell says "Shock is characterized by long continued low arterial pressure and a rapid feeble heart. Injections of alkaline solutions of sodium carbonate intravenously or per rectum increase the amplitude of the heart beat and cause a rise of arterial pressure. The effect is entirely due to a direct action on the heart. Sensory stimulation augments the shock."

Novy and Freer's studies of the organic peroxides will be read with interest by all who are seeking an agent which will destroy pathologic organisms without harm to normal structures.

Abel's studies of the supra-renal capsules will have a wide interest. He shows that they are functional glands, essential to continued life; why or how they are thus cannot now be stated. The blood pressure raising principle of these glands was first obtained by Abel and Crawford by treating extracts of the gland with benzol. He shows that adrenalin is not a crystalline body of constant composition and not a pure chemical individual.

Dr. Edmund Andrews tells of the Indian doctors first practicing in North America, their methods, medical society, etc.

Cushny's studies on saline diuresis show that the epithelium of the tubules absorbs some constituents of the glomular fluid, notably the water and chlorides. This absorption is by an unknown form of energy, acting as in the intestine causing a current from the lumen towards the

blood vessels. This energy is of considerable magnitude, and subject to modification by conditions apart from the living cells and organized matter. Thus the chlorides are absorbed by the epithelium of the tubules more readily than the sulphates; the presence of sulphates in the tubules limits the absorption of the fluid through the osmotic resistance of the solution opposing the cellular activity.

Lack of space forbids even mention of the other contributors to Dr. Vaughan's anniversary memorial. The fine illustrations, the superb paper, binding, broad margins, make a de luxe medical book to be prized alike by Dr. Vaughan, his friends the writers, and all the profession interested in the development of medical science.

ATLAS AND EPITOME OF THE DISEASES OF THE MOUTH, PHARYNX AND NOSE. By Dr. L. Grunwald. Second edition, revised and enlarged. Edited with revisions by James E. Newcomb, M.D., with 102 Illustrations on 42 Lithographic Plates, with 41 figures in the text. Philadelphia: W. B. Saunders & Co. Cloth. Price, \$3.

The high character of Dr. Grunwald in both his original investigation and teaching genius, combine to render this work especially trustworthy and attractive. The beauty and accuracy of the illustrations are quite a surprise in so low priced a book. Especially valuable are they to the physician, whose clinical experience has been limited in this field, in enabling him to compare his perplexing case with a correct delineation thereof.

Rare conditions and curiosities have been omitted as foreign to the plan of the work. What must be observed and the methods for conducting such observations are the leading features of both illustrations and text. German exactness devoid of German prolixity add to the attractiveness of the volume. As nearly all the illustrations were painted by the author direct from nature, the reader may look over his shoulder as he records his observation.

He errs not who adds this book to his medical library.

A COMPEND OF DISEASES OF THE SKIN. By Jay F. Schamberg, A. B., M. D., Philadelphia. Third Edition. Revised and enlarged, with 106 illustrations. P. Blakiston's Sons & Co., Philadelphia, 1903. Price, 80 cents net.

A Quiz-Compend appeals naturally to the student and it is from the student's standpoint that the book must be judged. As a rapid reference work to the subject of dermatology it well meets the demands upon it, embracing, as it does,

in a clear and succinct manner, the various skin diseases to which the student's attention is directed in his course of lectures and which he sees in the clinical material daily demonstrated. A work on diseases of the skin needs to be well illustrated, as this little book is. Dermatology can best be taught upon the living subject; but next to this is the book abounding with well selected illustrations.

A COMPEND OF HUMAN ANATOMY. By Samuel O. L. Potter, M. A. M. D., M. R. C. P., London. Seventh Edition. Revised and enlarged. With 138 wood engravings; also numerous tables and 16 plates of arteries and nerves. Philadelphia. P. Blakiston's Sons & Co., 1903. Price, 80 cents net.

As this book has reached its seventh edition with hosts of friends it has demonstrated its right to live. Careful examination sustains the author's claim for a thorough revision, in accordance with the latest works upon anatomy.

A prejudice exists with many against works of this general class, but it would seem that there are "books and books." Some give the essentials of the subject, others only part of the essentials. In fairness these two classes must be separated, as what is correct of the whole is not of the part. In so far as we are able to judge, Potter has really presented the essentials of anatomy as a whole. Necessarily he has been compelled to omit many details which the specialist needs to know, but such cannot be called essentials to the average medical student. In fact, we fear that few physicians carry with them a living knowledge of a tithe of those grouped as such by Dr. Potter.

Many careful readers make a condensation of books they read, and to such this may serve as a substitute. Others desire to master the framework of anatomy first and details later. This book will meet their needs. Others, in preparing for an examination desire to refresh their memories with the more important points. Potter will meet this desire. Others seek to refresh memory with general facts in preparing for an operation, etc.; they also will be glad to avail themselves of this aid. In short, as a help, under special circumstances, to better use of the larger anatomies as Morris, Gray, Quain, etc., Potter is a valuable book.

Old illustrations are replaced by fresh ones, and a number of new ones added. New matter has materially increased the size of the book. Those who found former editions useful will find this still more so; those seeking help along the lines indicated are sure to find it in Potter.